Morgan

Grade 8
NECAP Alternative Assessment Portfolio

Science

Middle School
NH

May 8, 2008
Teacher: Ms. S

Portfolio Validation Form

(Complete one for the entire portfolio)

Student Name: Morgan **SASID #:** _____ **Date:** 5/5/08

SAU #: _____ **Student's Grade:** ____2 ____3 ____4 ____5 ____6 ____7 ✓8 ____10 ____11

Team Statement:

The student's work evidenced in this portfolio accurately reflects typical instructional programming directed toward the specified standards.

Typical team participants may include: general education teacher, special education teacher, paraprofessional/instructional assistant, related service provider, parent, typical peer, etc.

Instructional Team Signatures:

- Name: J. Position: Science Teacher
  Contribution to Portfolio: Labs + Classroom instruction
- Name: S Position: Health Teacher
  Contribution to Portfolio: Unit on heart & heart diseases.
- Name: L Position: para, 1:1 aide (3/26/08-present)
  Contribution to Portfolio: assisted with morgan (Science labs & assignments)
- Name: A. Position: Case Manager / Special Ed. Teacher
  Contribution to Portfolio: Organized materials, provided support in labs
- Name: N. Position: Substitute Para (2/14/08-3/28/08)
  Contribution to Portfolio: Assisted Morgan w/ Science Labs and assignments
- Name: D. Position: 1:1 aide (8/30-2/13/08)
  Contribution to Portfolio: supported Morgan w/ Science labs + assignments
- Name: B Position: Lab Partner
  Contribution to Portfolio: gave verbal instructions, documented findings (Radioactive Half-Life lab)
- Name: E. Position: lab partner
  Contribution to Portfolio: assistance with lab over 8-week period. (Alum lab)

Statement of School Principal/General Curriculum Supervisor:

I verify that I have reviewed the portfolio of (student) Morgan, *in Grade* 8 *and have found it to be complete and ready for submission to Statewide Assessment.*

Principal's Signature: E **Date:** 5/8/08

Video, Audiotape, and Photo Permission Form

(This form is not required to be included in the portfolio.
It should be signed and kept in the student's school file.)

I give permission for the (please print) _____ Middle school to photograph or video- or audiotape my son/daughter, (print name) Morgan _____.

I understand that this will be included in my son/daughter's state assessment and will be used for educational purposes only.

_____
Parent/Guardian Signature

11-14-07
Date

Parent/Guardian Portfolio Review Statement

Name of student (please print) Morgan

I, (please print) K, have reviewed my child's work that is contained in this portfolio. My child's teacher, (please print) _____, has actively engaged me in this review process and has explained the contents of my child's portfolio appropriately. I believe this portfolio does/does not (circle one) reflect my child's current level of progress.

Comments:

5-8-08 K
Date Parent/Guardian Signature

5/8/08
Date Teacher Signature

Schools are responsible for seeking parent/guardian review of the completed portfolio. If the school is unable to obtain parent/guardian review of the portfolio and signature, the school must document all attempts to obtain this review, and a school representative must sign below.

Date Signature and Title

Documentation of attempts to obtain review and signature must be kept in the school records.

Dr. Lyonel B. Tracy
COMMISSIONER
Tel. 603-271-3144

STATE OF NEW HAMPSHIRE
DEPARTMENT OF EDUCATION
101 Pleasant Street
Concord, N.H. 03301
FAX 603-271-1953
Citizens Services Line 1-800-339-9900

Informed Consent and Permission to Use Portfolio Materials for Training Purposes

Dear Parent or Guardian:

Materials from the New Hampshire Alternate Assessment portfolio submitted for your child, (please print) Morgan, might be selected to be included in the Teacher Training Manual. This material may also be used for future manuals or other materials designed for training purposes. If chosen, the selection recognizes effort made by your child and the efforts of the lead implementer responsible for compiling the evidence for the New Hampshire Alternate Assessment. Before we can include your child's material, we require your permission. Please review the permission form below and sign in the designated place to indicate your decision regarding use of your child's material.

I, (please print) K_____, am the parent or legal guardian of (please print) Morgan _____. In this capacity, I grant the New Hampshire Department of Education permission to use the following material(s) from my child's New Hampshire Alternate Assessment portfolio.

Please check to indicate your consent for each individual type of portfolio evidence:

- X paper products **(personal identifiable information, such as last name, school name, etc., will be removed)**
- X pictures **(face will be blanked out)**
- ____ audiotapes
- ____ videotapes

____ I do not give consent.

I acknowledge this material can be used for the express purpose of training other educators, parents, or related service providers to either compile or score an Alternate Assessment portfolio.

K_____ _____ 5-8-08
Signature of Parent/Guardian Date

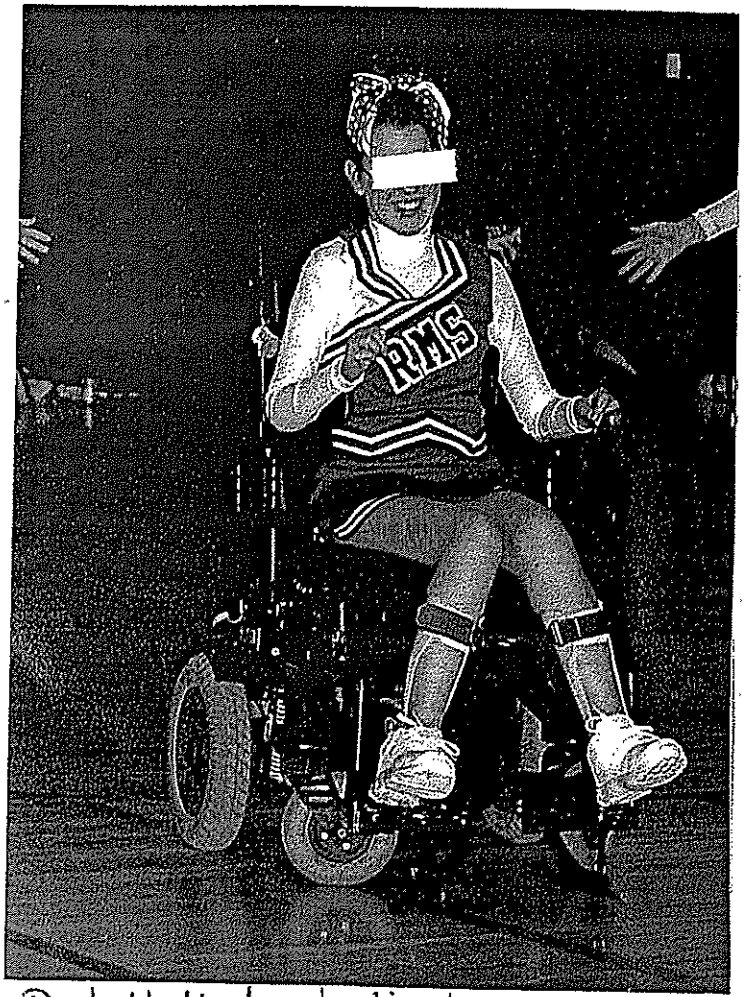
Morgan typed this on her desktop computer. She used her Vantage ATE for familiar information (first paragraph). Her 1:1 aide helped with spelling difficult words (cheerleader and nervous).

4/23/08

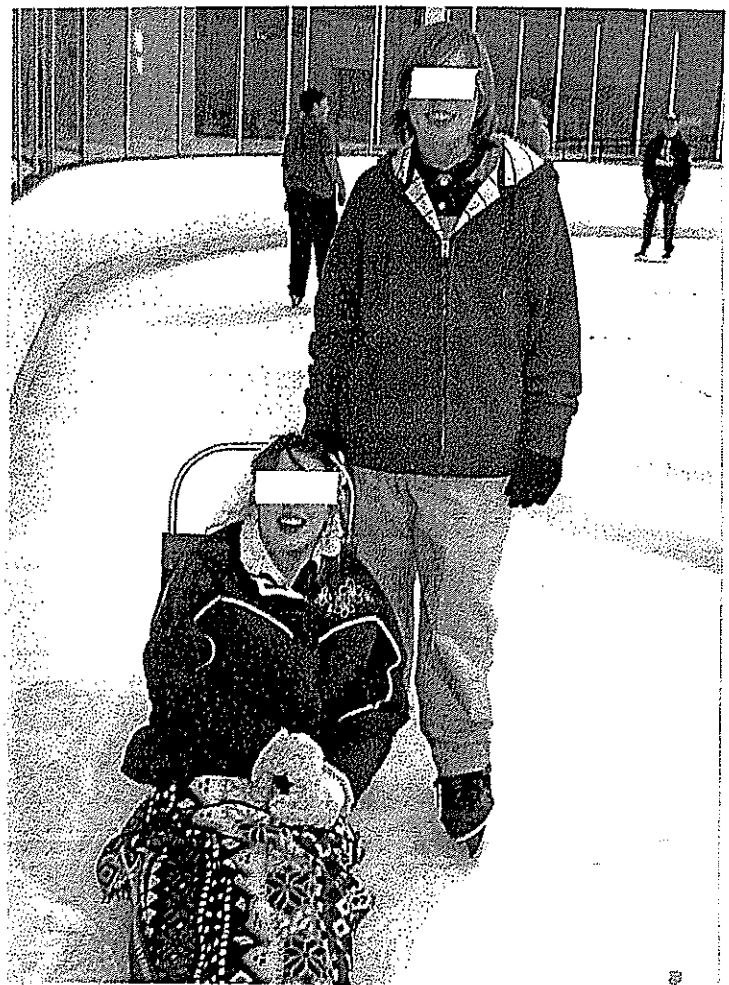
My name is Morgan I am 14 years old. I am in 8th grade at the Middle School in NH.
There is four people in my family, my mother, father and my brother and myself. I have a pet dog named Carmel and a cat named Ali and I just got a hamster named Butterball and a fish.

Eighth grade was fun I was a Cheerleader for basketball and met a lot of new friends. All my teachers are very nice to me but I really like going to science class with Mr. L , he is funny.

I am a little nervous about going to High School because I really like being in this school. But I know I will be fine because I went to visit the High School and everyone seems very nice there too.



Basketball cheerleading!


8th grade- skating field trip

Sensory Access Form:
Student Learning & Communication

The information captured in this document is important and will help us to learn useful information about the needs of students who take the Alternate Assessment. Please take care to answer the questions below thoughtfully.

Student Name: Morgan Date: 5/8/08

Student SASID Number: ____ Age: 14 Grade: 8

1. Means of Comprehension of Instruction

A. How does this student **receive/understand** information/instruction? (Circle **All** that apply)

Visually?	(Yes)	No	Don't Know
If yes, does student show understanding of what is seen?	(Yes)	No	Don't Know
Auditorily?	(Yes)	No	Don't Know
If yes, does student show understanding of what is heard?	(Yes)	No	Don't Know
Physically (through touch)?	(Yes)	No	Don't Know
If yes, does student recognize what is felt?	Yes	No	(Don't know)

Other? (please list):

Go to next page....

2. Means of Expression of Learning

Directions: How is this student able to *express* learning? For each item below, mark only one column as follows:

Column 1: Mark this column if the student is able to and does express information in this way, even if rarely.
Column 2: Mark this column if the student is able to use this means of expression but is never observed using it.
Column 3: Mark this column if the student is *not able* to use this means of expression at all.
Column 4: Mark this column if you do not have enough information to make this judgment.

Means of Expression	1 Yes, he/she can and does do this with frequency of: 4 = Usually 1 = seldom	2 Yes: He/she can but does not	3 No: He/she cannot do this	4 Don't Know
Moves limb, head, or body part *(May include movement to activate a switch)*	(4) 3 2 1	☐	☐	☐
Vision (eye-points, blinks, etc)	(4) 3 2 1	☐	☐	☐
Points with finger or hand	(4) 3 2 1	☐	☐	☐
Student gestures or signs single words	4 (3) 2 1	☐	☐	☐
Student gestures or signs a few words together/phrases.	4 3 (2) 1	☐	☐	☐
Student gestures or signs complete sentences	4 3 2 1	☐	☑	☐
Vocalizes sounds or parts of words	4 3 2 (1)	☐	☐	☐
Speaks single-words	4 3 2 (1)	☐	☐	☐
Speaks a few words together/phrases	4 3 2 1	☐	☑	☐
Speaks in complete sentences	4 3 2 1	☐	☑	☐

Student "writes" in any form,

(i.e. produces, or selects and organizes: words, pictures, or other symbols or objects):

Writes single-words	(4) 3 2 1	☐	☐	☐
Writes a few words together/phrases	(4) 3 2 1	☐	☐	☐
Writes in complete sentences	4 3 (2) 1	☐	☐	☐

Go to next page....

Means of Expression,

Continued.

	1 Yes, he/she can and does do this with frequency of: 4 = Usually			1 = seldom	2 Yes: He/she can but does not	3 No: He/she cannot do this	4 Don't Know
Forms of Writing Used							
Student writes by hand	4	3	2	(1)	☐	☐	☐
Student writes by word processor:	(4)	3	2	1	☐	☐	☐
Student writes using word prediction software	4	3	2	1	☐	☐	☒
Writes using picture formatted adaptive device	(4)	3	2	1	☐	☐	☐
Writes using single-word formatted adaptive device	(4)	3	2	1	☐	☐	☐
Writes using adaptive device formatted in phrases or sentences	(4)	3	2	1	☐	☐	☐
Writes using adaptive device formatted in complete sentences	4	(3)	2	1	☐	☐	☐
Student draws	4	3	2	(1)	☐	☐	☐
Manipulates objects	4	3	(2)	1	☐	☐	☐
Manipulates photos	4	3	(2)	1	☐	☐	☐
Manipulates concrete symbols or line drawings, simple pictures created for him or her	4	3	2	(1)	☐	☐	☐
Other (please list): all listed above	4	3	2	1	☐	☐	☐

Go to next page...

3. Supports

A. Does the student need supports to *receive* information in one or more sensory modalities?
(Circle) (Yes) No Don't Know

B. Does the student need supports to *express* information in one or more sensory modalities?
(Circle) (Yes) No Don't know

C. Below, Please check *all* the supports currently used with the student to help her or him *receive or express* information: (List specific technologies used as appropriate)

Type of Support	Check if Used	Specific Technology Used
Visual and/or Tactile Supports		
Corrective lenses (e.g., glasses or contact lenses)	☑	glasses
Large-print text (note font and size.)	☐	
Magnification or other optical aids	☐	
Reduction in visual complexity/blocking	☐	
Color coding/contrasting	☐	
Braille (uncontracted or contracted?)	☐	
Use of Brailler	☐	
Use of tactile graphics	☐	
Abacus	☐	
Manipulatives (describe types)	☑	math-fraction bars/blocks, Vantage AAC
Reduction in tactile complexity/limited touch, contact	☐	
Auditory Supports		
Amplification	☐	
Auditory feedback	☑	Vantage AAC + Universal Reader on computer
Reduction in noise complexity/blocking	☐	
Physical Supports		
Adaptive seating/positioning of student	☑	desk aligned with wheelchair
Wheelchair/mobility aid	☑	wheelchair (electric) + walker
Adaptive positioning of materials	☑	left handed, on lap if needed
Short sessions to reduce fatigue	☐	

Type of Supports, continued	Check if Used	Specific Technology Used
Communication Supports		
Sign language/finger spelling	☐	
Voice output communication aid (augmentative communication device)	☑	Vantage AAC
Point to symbols, words, etc.	☑	academic activities tests/quizzes
Eye-point to symbols, words, etc.	☐	
Blink	☐	
Tactile sign	☐	
Touch screen	☑	vantage aac
Scanning (switch, visual, auditory)	☐	
Switch	☐	
Voice recognition software	☐	
Physical assistance (describe assist)	☑	transfer from chair to walker, desk, etc.
Other communication response support	☐	
Objects with text	☐	
Photos with text (and/or picture exchange communication program)	☐	vantage aac includes pictures with text.
Pictures/line-drawing with text	☐	
Text (words, letters)	☐	Vantage AAC + Universal Reader (laptop + desktop) read her writing to teachers + general education peers.
Literacy Supports		
Adapted reading software	☑	books on tape/CD
Modified text	☑	Social Studies curriculum - lower level text
Adapted writing software	☑	Vantage AAC
Adapted writing utensil	☐	
Adaptive keyboard	☐	
Other supports (please list):	☑	Read aloud to by 1:1, teachers, and general ed. peers during classroom activities in gen. ed. class

End of Sensory Access Form.

Student Schedule
Middle School

Morgan Grade: 08 Group: 7 Quarter: 1 2 3 4
Homeroom: 206 Reading Music IT/Comp PE
Teacher: G Art PE Health FCS

	Monday	Tuesday	Wednesday	Thursday	Friday
8:10-9:10 am	English – G	English – G	English – G	English – G	English – G
9:00 – 9:50 am	UA (Unified Arts – varies per quarter)	Speech Therapy (misses a UA)	UA (Unified Arts)	UA (Unified Arts) *OT services in class	UA (Unified Arts)
9:50-10:15	Snack/Bathroom	Snack/Bathroom	Snack/Bathroom	Snack/Bathroom	Snack/Bathroom
10:15 – 11:00 am	Science – L	Science – L	Science – L	Science – L	Science – L
11:00 – 11:45 am	Math – O	Math – O	Math – O	Math – O	Math – O
11:45 – 12:30 pm	Social Studies – G /S	Social Studies – G /S	Social Studies – G /S	Social Studies – G /S	Speech Therapy
12:30 – 1:00 pm	Lunch (in Cafeteria with all 8th grade students)	Lunch	Lunch	Lunch	Lunch
1:00 – 1:40 pm	Resource Study	Resource Study	Speech Therapy (in Resource room or homeroom with typical peers)	Resource Study	Resource Study
1:40 – 2:35 pm	UA (Unified Arts – varies per quarter)	UA (Unified Arts)	UA (Unified Arts)	UA (Unified Arts)	UA (Unified Arts)

General Education class with typical peers
Special Education service in Resource Rm, or pull-out

Entry Cover Sheet #1
Science Required
(Grades 4, 8 and 11)

Student Name: Morgan **SASID #** **SAU #** **Grade:** 8

Content Standard:

Student will demonstrate an increasing understanding of how the scientific enterprise operates.

Student Performance and Progress: ONE *Measurable* Targeted Skill:

After listening to an oral summary of a Science lab or assignment, Morgan will make a concluding statement with 2 verbal prompts or less.

Explain how the targeted skill is connected to the Content Standard:

Morgan will have to demonstrate her understanding of how the scientific enterprise operates by make a concluding statement based on either a Science experiment or class assignment.

The following can be used as the Table of Contents for this entry:

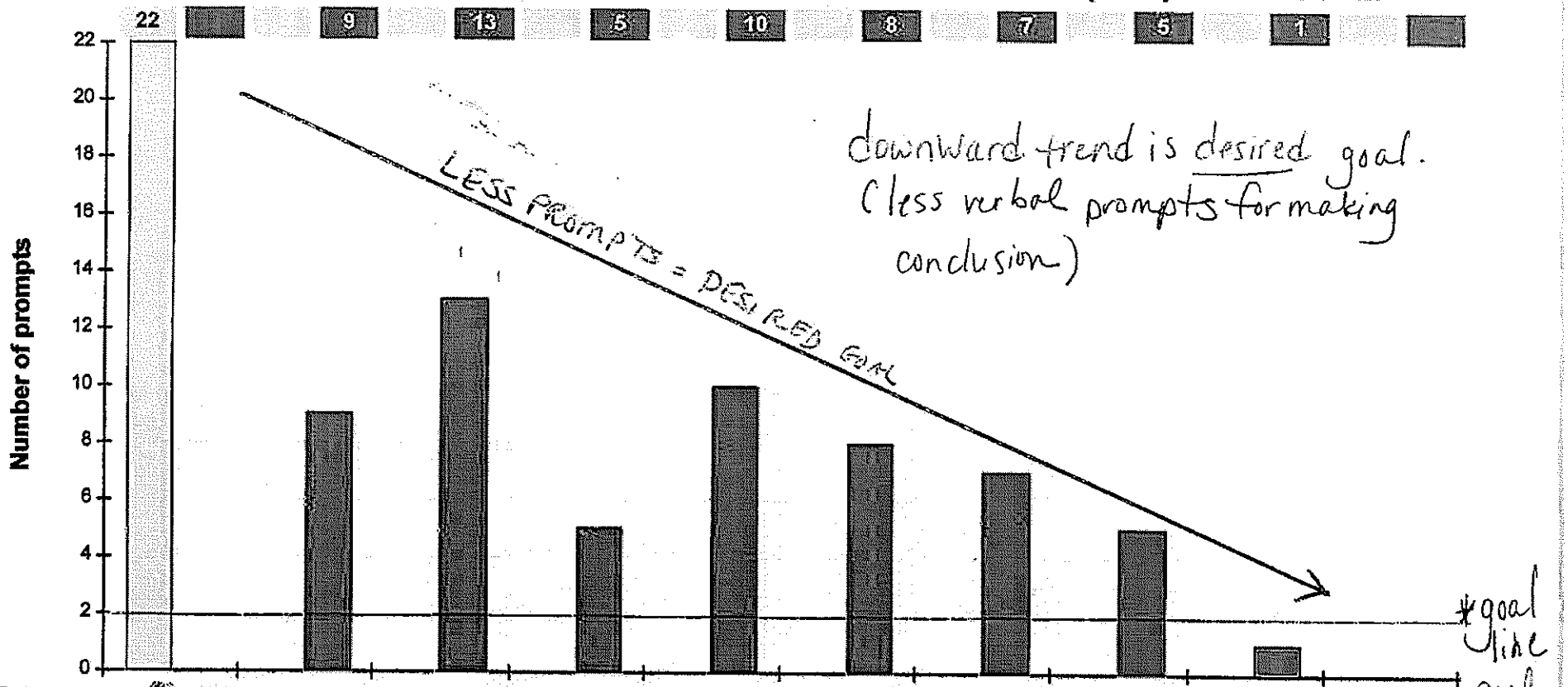
The following information must be recorded directly on each piece of evidence:

* Student's name and date of activity
* Accuracy of performance
* Cues, prompts or other assistance required by the student to complete the task
* Setting in which the activity occurred
* People who interacted and/or assisted the student in the activity

Evidence for this entry should follow this Entry Cover Sheet in chronological order.

Student Name: Morgan SASID # SAU # Grade: 8

Make a concluding statement with 2 or less verbal prompts – DOWNWARD TREND DESIRED



Date	10/10/2007	10/17/2007	11/2/2007	1/16/2008	1/29/2008	1/28/2008	3/19/2008	3/26/2008	4/1/2008
Brief Description of Data	After completing a Cookie Mining lab, Morgan made a concluding statement re. the environmental impact of mining with 22 verbal and other prompts	After watching an in-class video on the oceans, Morgan made a concluding statement regarding water on earth with 9 verbal prompts	After completing a Crystal formation lab, Morgan made a concluding statement with 13 verbal prompts	After completing a class lesson on relative dating of rocks (via sorting of newspapers by date), Morgan made a concluding statement with 5 prompts	After completing an 8-week lab on Alum crystal formation, Morgan made a concluding statement with 10 prompts	Morgan completed a homework assignment requiring following directions to determine the oldest fossil with 8 verbal prompts	After completing a lab on plate tectonics with graham crackers and frosting to demonstrate, Morgan made a conclusion with 7 prompts	After participating in class lesson on erosion, Morgan made a concluding statement with 5 prompts	In-class assignment on the effect of increased water pressure on the formation of channels in soil. 1 prompt for conclusion.

Key

- verbal/other prompts
- verbal prompts only

Comments: Morgan achieved the goal of making a concluding statement with 2 or less verbal prompts. Morgan participates in the General Education Science class every day with the support of a 1:1 aide or the Special Education teacher. She is often partnered with typical peers for labs who provide role modeling and assistance as needed. It is important to note that making conclusions is difficult for Morgan as she often makes observations instead of conclusions

WORK SAMPLE # 1

Science Required Standard
Grades 4, 8, and 11 Only

Data Collection Period I
September 17–November 16

Student Work Sample Label *Attach to Work Sample*	
Student Name: Morgan	**Date:** 10/10/2007
Content Area: Science 1 Work Sample: 1	
Data Collection Period: I	Setting: General Education Science class with typical peers, general ed science teacher and 1:1 aide.
Activity Description: Science lab on mining and its environmental impact. Students were given cookies with chocolate chips and m&m's in them. Using toothpicks, they had to carefully "mine" the chips out of the cookies with minimal impact on the surrounding "land" (cookie).	
Student's Performance Relative to the Targeted Skill: Morgan made a concluding statement about the environmental impact of mining with 22 verbal and other prompts (also required additional information from internet, textbook for understanding of mining impact on environment.)	
Supports: SmartBoard used for computer demonstration of mining during pre-lab class. 1:1 aide support with lab. Typical peers performed lab at same time (modeling). Aide supported with accessing internet for follow-up research. Library book re. mining and its impacts shown to Morgan prior to her making a concluding statement.	

10/10/07

Morgan "mined" her cookie using a toothpick. Il aide scribed on data sheet.

Cookie Mining Data Sheet

1. Name of Mining Claim .....

a.	Chippy
b.	
c.	
d.	

2. **Price of Mining Claim** .....

a.	7.00
b.	
c.	
d.	

2a. **Total**..... 7.00

3. **Equipment:**

Flat Toothpick	1	x $2.00 =	2.00
Round Toothpick	2	x $4.00 =	4.00
Paperclip		x $6.00 =	

3a. **Total**..... 6.00

4. **Mining Costs:** ____ min. x $1.00 = ____

4a. Cost of removing chips ..... - 0 -

Reclamation

____	sq. x $1.00	a.
____	sq. x $1.00	b.
____	sq. x $1.00	c.
____	sq. x $1.00	d.

4b. **Total**..... - 0 -

5. **Total Cost of Mining** (=sum 2a, 3a, 4a, and 4b) 13.00

6. Chip removal:

Banker's Initials	Mass of Chips (g	x market value/ gram	Gross Value
	1	2.00	
	2	4.00	

6b. **Total**..... 21.00

Was I a successful miner?

Value of Chips		21.00
Total Cost of Mining	minus	13.00
Total	equals	8.00
Did you forget to account for EPA or MSHA fines?	minus	—
Profit or Loss	TOTAL	+13

Morgan [redacted]
selling:
Gen Ed. Science classroom
w/ typical pets

10/10/07

Cookie Mining

Objective: Students will learn about the economic and environmental costs of mining as they work with a mining model by buying tools and land, and "mining" chocolate chips out of their cookies. Students will also deal with issues that result from various mining hazards and challenges such as renewable versus nonrenewable resources, cave-ins, price fluctuations and reclamation costs.

General Instructions:

1. Each student starts with $19 of play money.
2. Each student receives a "Cookie Mining Data Sheet" and a sheet of grid paper.
3. Each student must buy his/her own "mining property" which is a chocolate chip cookie. Three types of cookies should be "for sale"; Hannaford Brand cookies for $3.00, "Chips Ahoy" cookies for $5.00, and "Chips Deluxe" for $7.00.
Students will choose their "properties" knowing that the more chips they harvest, the more profit they make.
4. After buying the cookie, the student places it on the grid paper and, using a pencil, traces the outline of the cookie. The student must then count each square that falls inside the circle, recording this number on the Cookie Mining Spreadsheet along with the properties of the cookie.
Note: Count partial squares as a full square.
5. Each student must buy his or her own "mining equipment." More than one piece of equipment may be purchased. Equipment may not be shared between students. Mining equipment for sale is

Flat toothpick:	$2.00 each
Round toothpick:	$4.00 each
Paper clip:	$6.00 each

6. Mining costs are $1.00 per minute.
7. Sale of 1 (one) gram of chocolate chips mined from a cookie brings $2.00.
8. After the cookie has been "mined," the cookie fragments and crumbs should be placed back into the circled area on the grid paper. This can only be accomplished using the mining tools — No fingers or hands allowed.
9. Reclamation costs are $1.00 per square over original count. (Any piece of cookie outside of original circle counts as reclamation.)

COOKIE MINING RULES

1. Students cannot use their fingers to hold the cookie. The only things that can touch the cookie are the mining tools and the paper on which the cookie is sitting.
2. Students will be allowed a 45 minutes to mine their chocolate chip cookie(s).
3. The market value of mined chocolate chips will change every three minutes. A die will be rolled; an even number will cause the market value to increase by the number shown on the die and an odd number will result in the market value to tumble by the amount revealed on the die.
4. A student can purchase as many mining tools desired; the tools can be of different types.
5. If the mining tools break, they are no longer usable and a new tool must be purchased.
6. The teacher (Mr. Lees) will check all the "sites" for environmental and labor hazards as well as reclamation compliance.

7. The teacher (Mr. L[redacted]) will be the banker and will monitor all sales of land claims and mining equipment. The banker will also purchase all mined chocolate chips at the "current market rate."
8. The students that make money by the end of the game win.

Questions:
Discuss the following points about the choices of "mining claim" (cookies) and pieces of mining equipment purchased:
1. Which "mining claim" was the best investment?
2. Which "mining claim" was the hardest or the easiest to mine? Why?
3. Which tools or combination of tools seemed to work the best?
4. Which tools were the best value? (Which lasted throughout the operation)

Discuss the following points about reclamation:
5. Reclaimed "land" must resemble the geography of the original terrain. In this case it must look like a cookie. Was the cookie mining activity messy?
6. How was the mine owner (student) responsible for the mess?
7. Do you think that a real mine would produce a lot of excess material that would need to be cleaned up?
8. Can you think of any ways that a mine owner could be made responsible for the impact made on the environment?
9. Who determines if the land meets reclamation standards?
10. What if there's a disagreement about reclamation?
11. How did this activity help you to understand the way a real mine works?
12. Do you use anything that comes from a mine?
13. What is the most valuable thing you know of that can be mined?
14. What types of mines are in the state of New Hampshire?

1, What are the environmental impacts of mining?

Mining affects: Water, Smoke, Pollution

Questions #7 + #8 chosen by Science teacher for Morgan's conclusion. She used an additional 30 mins. of a class period to finish conclusion with supports and prompts described on sample label. Only completed question 7.

22 prompts

WORK SAMPLE # 2

Science Required Standard
Grades 4, 8, and 11 Only

Data Collection Period I
September 17–November 16

Student Work Sample Label *Attach to Work Sample*	
Student Name: Morgan.	**Date:** 11/2/2007
Content Area: Science 1 Work Sample: 2	
Data Collection Period: I	Setting: General Education Science classroom with typical peers, general ed science teacher, special education teacher, 1:1 aide
Activity Description: Prior to working on an 8-week long unit on formation of an alum crystal, students completed a smaller lab on crystal formation from colored "seed" crystals.	
Student's Performance Relative to the Targeted Skill: After completion of lab and a summary of lab provided by Special Ed. teacher, Morgan made a conclusion, that was actually an observation, with 13 prompts.	
Supports: Typical peer modeling, pre-teaching by gen. ed. science teacher, 1:1 aide support, special education teacher support with making conclusion.	

Name Morgan Class 6 Date 11/2/07

CHAPTER 3 | Minerals of the Earth's Crust

SECTION 3

The Formation, Mining, and Use of Minerals

BEFORE YOU READ

After you read this section, you should be able to answer these questions:

- How do minerals form?
- How are mineral resources used?

How Do Minerals Form?

Different minerals form in different environments. The table below shows five ways that minerals can form.

Process	Description	Minerals that form this way
Evaporation	When a body of salt water dries up, minerals are left behind. As the water evaporates, the minerals crystallize.	gypsum, halite
Metamorphism	High temperatures and pressures deep below the ground can cause the minerals in rock to change into different minerals.	garnet, graphite, magnetite, talc
Deposition	Surface water and ground water carry dissolved minerals into lakes or seas. The minerals can crystallize on the bottom of the lake or sea.	calcite, dolomite
Reaction	Water underground can be heated by hot rock. The hot water can dissolve some minerals and deposit other minerals in their place.	gold, copper, sulfur, pyrite, galena
Cooling	Melted rock can cool slowly under Earth's surface. As the melted rock cools, minerals form.	mica, feldspar, quartz

STUDY TIP

Describe As you read this section, make a chart showing the uses of different rock and mineral resources.

TAKE A LOOK

1. Identify Give three minerals that form by metamorphism and three minerals that form by reaction.

Metamorphism:

garnet, graphite, talc

Reaction:

gold, copper, sulfur

How Are Minerals Removed from the Earth?

People mine many kinds of minerals from the ground and make them into objects we need. Some minerals have more useful materials in them than others. An **ore** is a rock or mineral that contains enough useful materials for it to be mined at a profit.

There are two ways of removing ores from Earth: surface mining and subsurface mining. The type of mining used depends on how close the ore is to the surface.

page 1 of packet used during class. Gen. Ed Science teacher taught topic to all students, then followed up with lab.

Name: Morgan Date: 11/2/07 - 11/5/07

Setting: Gen Ed Science classroom w/ typical peers.

Formation of Crystal lab: Materials and Procedures

Materials needed:

plastic container	beaker
Stirring rod	heating pad
Teaspoon	rocks
Magnifying glass	crystals (minerals)

Follow these steps to complete the crystal lab:

1. Pour the crystals (minerals) into the plastic cup, leaving about 1/8tsp. out.
2. Using the stirring rod, use a magnifying glass to look closely at the grains.
3. Measure 68ml of water into a beaker and put the beaker onto the heating pad.
4. Bring water to a boil.
5. Pour water into container of crystals.
6. Stir solution until crystals have dissolved.
7. Place rock(s) into mixture. Leave approximately 1/3in. of solution above the rock(s).
8. Cover container, and allow to sit overnight.
9. Day 2 – remove lid, observe, and leave container for another night.
10. Day 3 - observe crystal, and remove from container if satisfied with growth. If not, leave uncovered for one more day.

Morgan had physical assistance from an aide with steps of lab. Lab steps were read aloud, and Morgan completed steps she could do (stirring, measuring)

Name: Morgan Date: 11/2/07

Science Lab: The Formation of Crystals

Special Education teacher assisted on 11/5 with final steps of lab.

Fill in the data table below as you complete the crystal lab:

13 prompts

Name of Crystal	Date begun	Time begun	Amount of "mineral"	Amount of water	Temp. of solution	Date ended	Time ended
Pink Quartz	11/2	8:30		68ml	boiling	11/5	8:00

Sorted 5!?

Answer the following questions based on your observations:

1. How long did it take for your crystal to grow? 3 days 4 hours

2. Was the water level at the end of the experiment the (circle one) **same** or **lower?**

3. What is it called when water levels decrease when sitting uncovered, exposed to air?
   Circle one: **condensation** **precipitation** **evaporation**

4. Why do you think the crystals formed on the rock? What happened to the minerals?

I think the crystals became black.

9

Self-Determination Sheet

Name: morgan **Date:** 11/24/07

1. For this lab, I would like help from:

an adult **a classmate** **on my own**

2. I will need help with:

completing steps of lab **recording data**

making conclusion **nothing**

3. This lab was: **HARD**

Confusing

Okay, but sort of hard

4. I had: **Too much help**

Not enough help

The right amount of help

5. Next time I will need help with:

I don't thoe

Science Required Standard
Grades 4, 8, and 11 Only

Data Collection Period II
November 19–February 1

Student Work Sample Label *Attach to Work Sample*	
Student Name: Morgan	**Date:** 1/16/2008
Content Area: Science 1 Work Sample: 1	
Data Collection Period: II	Setting: General Ed. Science class with typical peers, Gen ed. science teacher, 1:1 aide
Activity Description: Students learned about relative dating of rock. Gen. ed. science teacher led a lesson using newspapers of varying dates to demonstrate the ages of rock layers. Students stacked newspaper with oldest on bottom, newest on top.	
Student's Performance Relative to the Targeted Skill: Morgan answered the concluding question "Where is the oldest rock layer?" after completing the class lesson. She independently ordered the papers (told aide where they went in the pile), and made the correct conclusion with 5 verbal prompts.	
Supports: Physical assist by 1:1 aide with stacking of papers, peer support as lesson partner, verbal review of lesson by 1:1 aide.	

Name Morgan Class Date 11/4/08

CHAPTER 6 The Rock and Fossil Record

SECTION 2

Relative Dating: Which Came First?

BEFORE YOU READ

After you read this section, you should be able to answer these questions:

- What is relative dating?
- How can rock layers be disturbed?

National Science Education Standards
ES 2b

What Is Relative Dating?

Imagine that you get a newspaper every day. At the end of the day, you stack the day's paper on top of the paper from yesterday. In time, you build up a large stack of newspapers. Where are the oldest newspapers in the pile? Where are the newest ones? The oldest papers are at the bottom of the pile, and the newest ones are at the top.

Layers of rock are similar to your stack of newspapers. In most cases, the oldest layers of rock are found below the youngest layers. The idea that younger rocks lie above older rocks is called **superposition**.

The idea of superposition can help geologists learn the order in which different rock layers formed. In general, rock layers near the top of a rock sequence formed after layers of rock lower in the sequence. Therefore, the layers at the top of the sequence are younger than the layers lower down. Figuring out whether a rock layer is older or younger than the layers around it is called **relative dating.** ☑

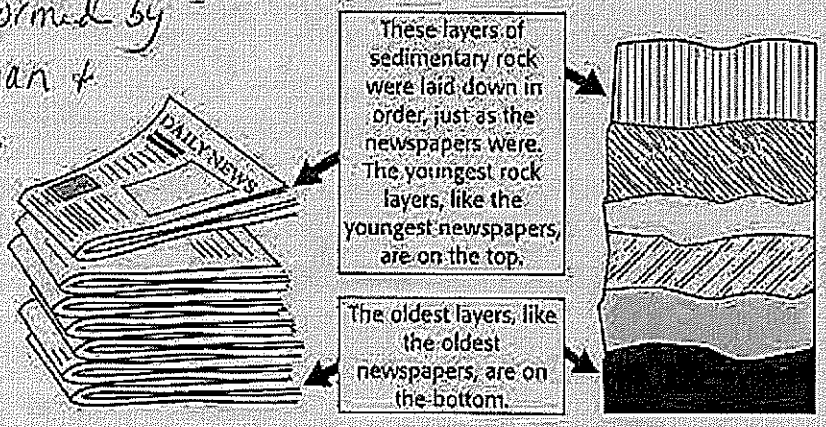
STUDY TIP

Compare In your notebook, make a chart explaining different ways that rock layers can be changed after they form.

READING CHECK

1. Define What is relative dating?

figuring out whether a rock layer is older or younger than the layers around it



The idea of Superposition says that rock layers at the bottom of a body of rock are older than layers at the top. Geologists can use this idea to determine the relative age of different rock layers.

TAKE A LOOK

2. Identify Fill in the blank line in the figure.

Name Morgan Class Science Date 1/16/08

Directed Reading A *continued*

not part of lab

TYPES OF UNCONFORMITIES

Match the correct description with the correct term. Write the letter in the space provided.

_____ 17. found between horizontal layers of sedimentary rock and rock layers that have been tilted or folded

_____ 18. where sedimentary rock layers lie on top of an eroded surface of older intrusive igneous or metamorphic rock

_____ 19. most common type of unconformity

a. disconformity
b. nonconformity
c. angular unconformity

ROCK-LAYER PUZZLES

20. How do geologists figure out rock-layer puzzles?

Where is the oldest layer? 1/16/08

8:40 AM

Gen. Ed. Science teacher asked class this question aloud. Morgan wrote her response.

5 prompts

Self-Determination Sheet

Name: Megan **Date:** 1/18/08

1. For this lab, I would like help from:

an adult **a classmate** **on my own**

2. I will need help with:

completing steps of lab **recording data**

making conclusion **nothing**

3. This lab was: **HARD**

Easy

Confusing

Okay, but sort of hard

4. I had: **Too much help**

Not enough help

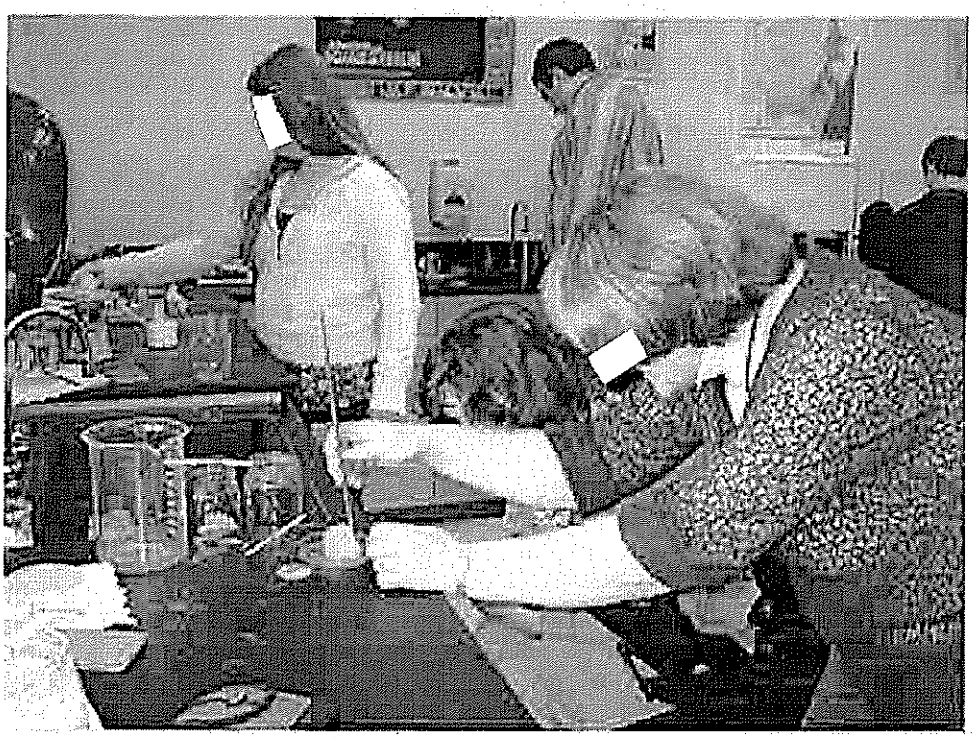
The right amount of help

5. Next time I will need help with:

Science Required Standard

WORK SAMPLE # 2

Data Collection Period II
November 19–February 1



Student Work Sample Label ***Attach to Work Sample***	
Student Name: Morgan	**Date:** 1/29/2008
Content Area: Science 1 Work Sample: 2	
Data Collection Period: II	Setting: General Education Science class with typical peers, Gen. Ed. Science teacher, 1:1 aide.

Activity Description:

This was the last lab on an 8-week unit on the formation of a crystal using alum. Morgan partnered with two typical peers. Each week, they measrued, weighed, and made observations of their crystal. As a group, they measured alum and water, heated, and added to their existing crystals. Today's lab required measuring, weighing, and making observations and conclusions re. final crystal.

Student's Performance Relative to the Targeted Skill:

After an oral review of the alum lab and growth of her crystal, Morgan made a conclusion (an observation) with 10 verbal prompts.

Supports:

Aide held ruler while measuring crystal, scribed of data on lab sheet, typical peer support with scale for accuracy of weight. Verbal prompts provided by aide re. conclusion.

Lab Instructions for Day 1 of Crystal lab.
Lab sheet included here (p. ——) is from last day of 8-week lab. Lab instructions were given verbally on 1/29/08. (orange sheet)

ALUM CRYSTAL MAKING LAB DAY 1

To form alum seed crystals, the group must first make a supersaturated solution. A supersaturated solution is a liquid that is holding more solute or dissolved material than normal because the solutions temperature has been increased.

Each week the group members will switch the three basic jobs in an orderly fashion. Alum Measurer Cleaner Solution Maker

Read through the entire lab, and then perform your part

Clean all materials that will come in contact will the alum or the solution. Never wipe dry glassware, always allow tools to air dry. Use the special glass cleaner called Alconox. A little goes a long way. Rinse thoroughly! The cleaned tools should not feel slippery.

Measure 150 ml of water into a clean beaker. Heat water until it almost boils. Do NOT let the water boil. Water boils at 100 C. Use a thermometer to check the temperature. When water is ready, remove from the heat and stir in the alum. If the alum does not dissolve, return the solution to the heat.

Measure 33.75 g of Alum. Remember that Alum is a corrosive material and must be measured in a Petri dish. Refer to your class notes if you have forgotten how to do this. Never put Alum back into the original container.

Record all data from group members. Observe the water and Alum before, during and after mixing. Write thorough details of your observations in the Alum lab section of your science notebook.

Place a name tag on your beaker with all the group members' names and place the beaker in your class box. Clean up your lab station and wash your entire lab space.

Name: Morgan [redacted] Date: 1/29/08

setting: Gen Ed Science classroom w/ typical peers.

My Job Today: *(Circle one)*
Cleaner / Alum Measurer / Solution Maker

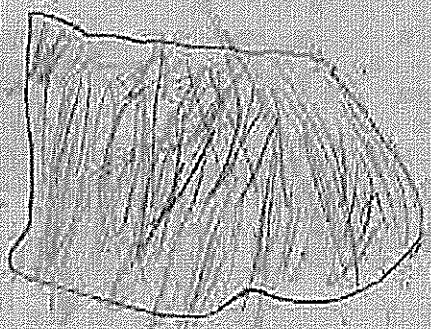
Data:

1. Mass of crystal: 52.6 g
2. Length of crystal: 4 cm
3. Width of crystal: 4 cm
4. Estimated amount of water to add: Ø ml
5. Mass of new alum: Ø g

To find the mass of the alum you need, use the following formula. Plug in the amount of water you need for your crystal, and solve for the unknown.

$$\frac{150ml}{33.75g} = \frac{\textit{Volume of New Water}}{\textit{Mass of New Alum}}$$

Observations: (Remember to include good, detailed descriptions.)

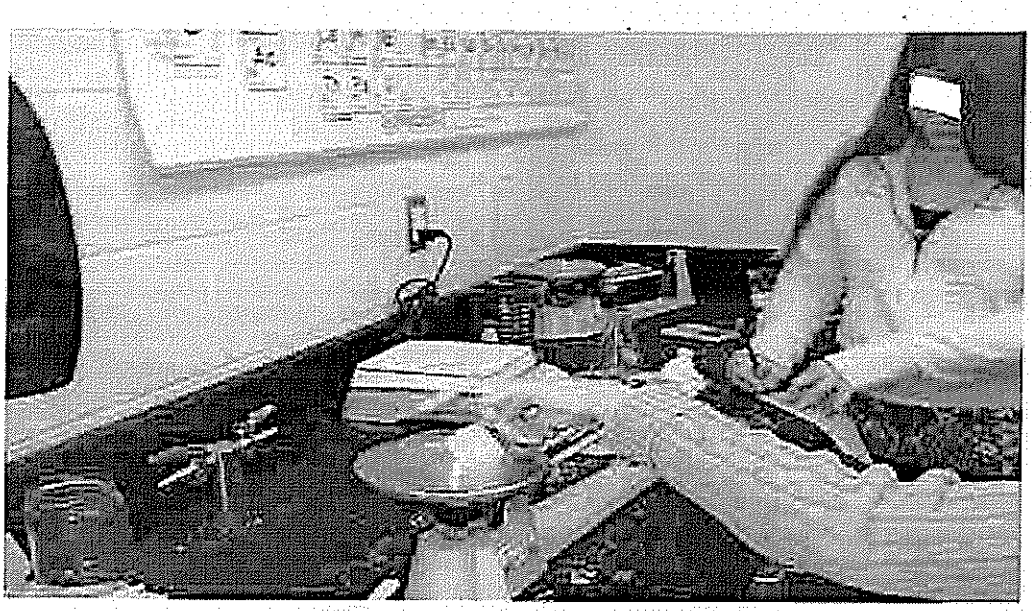


Morgan was given an oral summary of alum lab experience, reminded of what happened + why. She stated the following with 10 prompts.

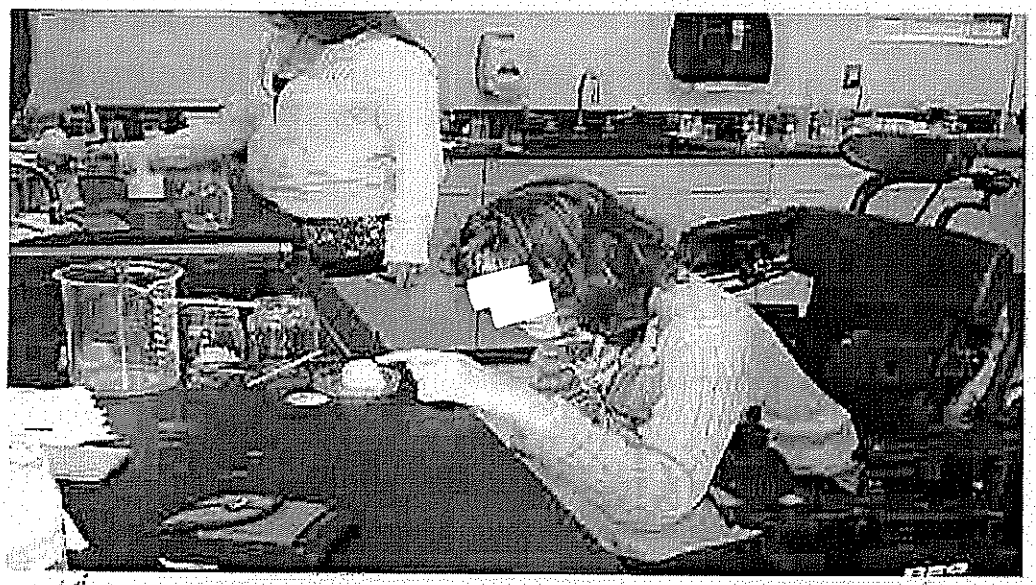
Sketch: (Draw a sketch of your crystal)

My crystal is: White clear Diamond-shape

Morgan's conclusion



Morgan weighing her final crystal. Typical peer lab partner assisted with lab.



observation of crystal before drawing.

End of alum lab. Morgan's crystal!

Self-Determination Sheet

Name: Morgan **Date:** 1/29/08

1. For this lab, I would like help from:

an adult **a classmate** **on my own**

2. I will need help with:

completing steps of lab **recording data**

making conclusion **nothing**

3. This lab was: **HARD**

Confusing

Okay, but sort of hard

4. I had: **Too much help**

Not enough help

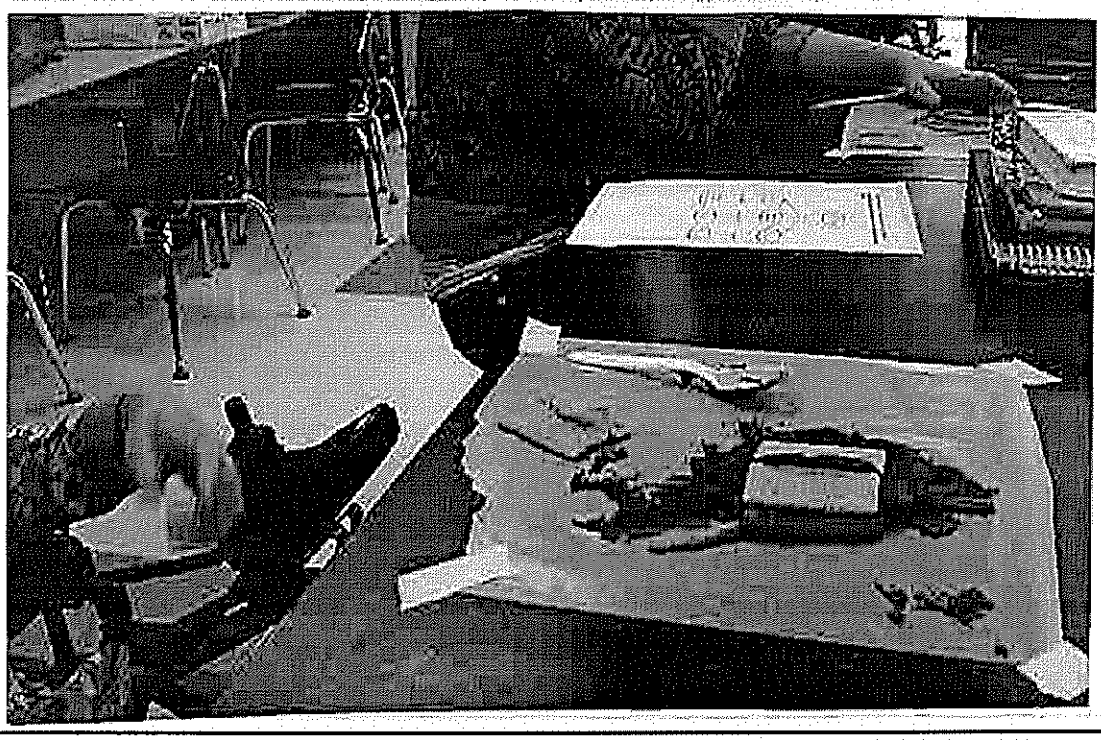
The right amount of help

5. Next time I will need help with: Nothing

Science Required Standard

WORK SAMPLE # 1

Data Collection Period III
February 4–April 18



Student Work Sample Label ***Attach to Work Sample***	
Student Name: Morgan .	**Date:** 3/19/2008
Content Area: Science 1 Work Sample: 1	
Data Collection Period: III	Setting: General Education Science class with typical peers, Gen Ed. Science teacher, Special Education teacher
Activity Description: Students completed a lab simulating plate tectonics. Students had wax paper, chocolate frosting, and graham crackers. They followed oral directions from science teacher to move "plates" either together or apart to simulate divergence and covergence of tectonic plates and its impact on the earth's mantle and crust.	
Student's Performance Relative to the Targeted Skill: After participating in the lesson, Morgan made concluding statements regarding the various steps of the lab with 7 verbal prompts.	
Supports: Questions asked by Science teacher were written on paper by Special Education teacher with choices of responsed provided. Vocabulary web provided for pointing during questions.	

Morgan.

3/19/08

Setting: Gen. Ed. Science classroom
w/ typical peers

Plate Tectonics Model

Materials: wax paper, masking tape, plastic knife, frosting, graham crackers, and water

Procedure:
1. Place wax paper on desk top and use masking tape to hold it in place.
2. Obtain an amount of frosting (determined by Mr. L), place on wax paper and spread smooth to a depth of 0.5 cm.
3. Place graham cracker pieces on the frosting.
4. Do the following and record all observations. Make a **diagram** illustrating each of the situations below.
    a. put downward pressure on the crackers and pull them apart
    b. place downward pressure and push them together
    c. with the crackers side by side, try to slide them past each other
    d. Dampen the edge of two crackers and push them together.

Application:
1. What do each of the above situations represent?

See attached questions, page 24.

2. Which example represents a convergent boundary? ....a divergent boundary? ....a transform (strike-slip) boundary?

See attached questions, page 24.

Morgan Plate Tectonics 3/19/08

100% Teacher's questions written w/ choices for response, or word bank for pointing. Pre-prompts

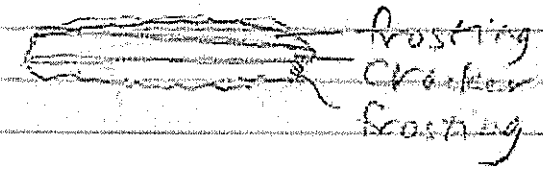
1.) What Earth features are represented by the Graham Crackers? She achieved a 100%

crust "plates" mantle

Frosting?

mantle asthenosphere crust

2)



a. divergent boundary

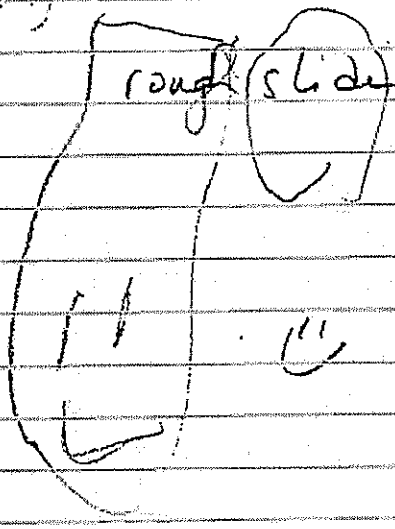
b. found under water - ocean ridge formed

3)

a. convergent boundary

3. transform boundaries -

smooth slide



4. What type of plates bend + buckle when they come together? (Mushy graham crackers)?

2 oceanic

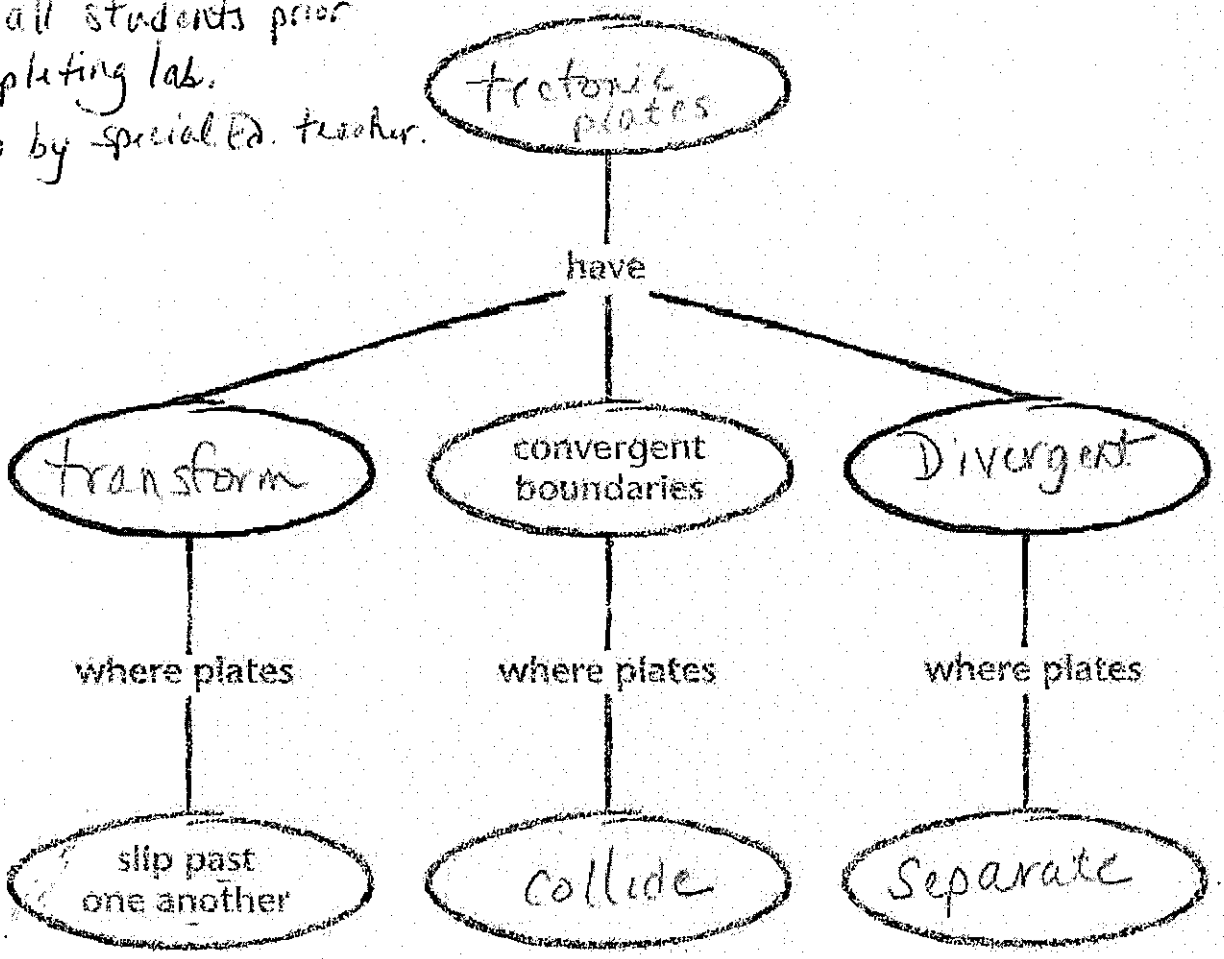
2 continental

ocean + continental

Morgan 3/19/08

Use the following terms to complete the concept map below:
transform boundaries, tectonic plates, collide, divergent boundaries, separate

This paper was filled in by all students prior to completing lab. Scribed by special Ed. teacher.



used as word bank for questions 2+3 on question sheet, p. 24

Self-Determination Sheet

Name: Morgan **Date:** 3/19/08

1. For this lab, I would like help from:

an adult **a classmate** **on my own**

2. I will need help with:

completing steps of lab **recording data**

making conclusion **nothing**

3. This lab was: **HARD**

Confusing

Okay, but sort of hard

EASY

4. ~~I had:~~ ~~Too much help~~

Not enough help

~~The right amount of help~~

No Help

5. Next time I will need help with:

No Help

SAMPLE DATA SHEET FOR TRACKING PROMPTS.

Data Sheet – Assistance and prompts required – Morgan Johnson

Assignment: Plate Tectonics Lab Class: Science

Date: 3/19/08

Please fill in the types and amounts of prompts and assistance provided for Morgan to make a final conclusion about the experiment/lab.

Verbal prompts: (complete with tally marks)

questions on p. 24

#2 - III #3 - II

#4 - II

Physical Assistance: (tally marks, and indicate what you assisted her with)

Visual modeling

assistance w/ lab (cranking, gesturing)

Did you have to re-teach the concept? yes

Who assisted her with the lab? (ie. peers, teacher, aide) _____

Did she use her Vantage at any time during the class or lab? (Describe what she communicated)

_____

_____

_____

WORK SAMPLE # 2

Science Required Standard
Grades 4, 8, and 11 Only

Data Collection Period III
February 4–April 18

Student Work Sample Label *Attach to Work Sample*	
Student Name: Morgan	**Date:** 3/26/2008
Content Area: Science 1 Work Sample: 2	
Data Collection Period: III	Setting: General Education Science classroom, General Education Science teacher, Special Education teacher (as aide)
Activity Description: General Education Science teacher demonstrated impact of water erosion on riverbed via a slanted water/sand table. He had placed rocks and sediment in table. A small hose was placed at head of table and water turned on with varying pressure. Students made observations on changes in "river bed" due to erosion.	
Student's Performance Relative to the Targeted Skill: After participating in an experiement with varying water forces on a river bed, Morgan made a conclusion about the effect of water pressure on river bed erosion with 5 verbal prompts.	
Supports: Questions on paper modified by Special Education teacher. Gen. Ed. Science teacher's oral questions were written on paper for Morgan to answer with choices. Answers were scribed.	

Name [illegible] Class _____ Date 4/26/06

CHAPTER 15

ACTIVITY ■ Erosion and Deposition

Deposition by Running Water

1. Place a mixture of soil and gravel in a large square or rectangular cake pan.
2. Use two blocks of wood to elevate one end of the soil-filled pan. Place a bowl at the lower end of the pan to catch the overflow. (Sink instead of pan.)
3. Fill a sprinkling can with water. Slowly pour the water over the soil and gravel at the elevated end of the pan. (Water pump instead)
4. Observe what happens as the water moves over the soil and gravel.

Do you see small channels forming in the sediments? 2 channels

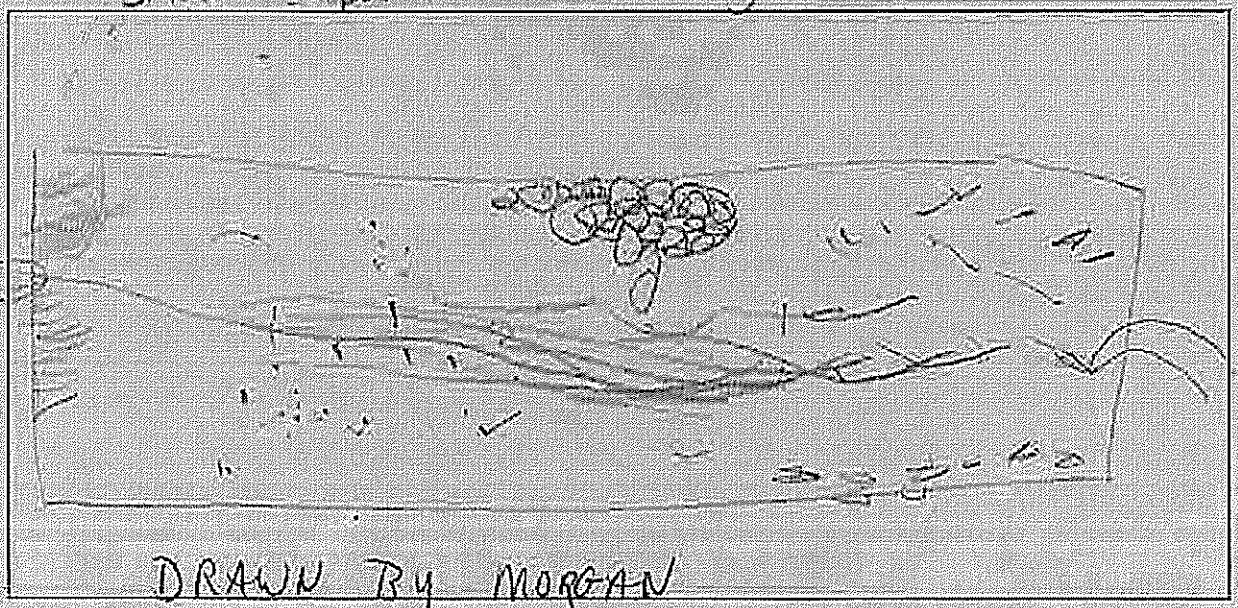
Vantage AAC & gesturs used to answer questions. Special Ed. teacher Scribed.

~~Is there any~~ What is the evidence of erosion along the sides of the channels? The rocks were there but the sand was gone

~~Does the deposition feature form at the lower end of the pan?~~

Describe what collects ~~in the bowl~~ at the end by the drain. Water and a little bit of sand

In the space provided, draw a diagram that illustrates your experimental setup and results. Show a deposition in the drawing



DRAWN BY MORGAN

Were the channels:

Curved

Straight

Does increasing the pressure increase the load? (the amount of material carried by a river)

Yes

No

Entry Cover Sheet #2
Science Choice
(Grades 4, 8 and 11)

Student Name: Morgan **SASID #** **SAU #** **Grade:** 8

Content Standard:

#2 - Student will demonstrate an increasing ability to recognize parts of an object or system, and understand how parts interrelate in the operation of that object or system.

Student Performance and Progress: ONE *Measurable* Targeted Skill:

After class instruction and study of information with a peer or adult, Morgan will independently and with 90% accuracy identify the parts of scientific systems (ex. ocean floor, geologic rock formations, human heart, watershed areas) by matching pictures, words, or objects that represent the identified parts.

Explain how the targeted skill is connected to the Content Standard:

Morgan sorted, matched, and identified different parts of science-related systems. As a result, she demonstrated understanding of how parts interrelate in the operation of the systems she studied (2nd half of the content standard).

The following can be used as the Table of Contents for this entry:

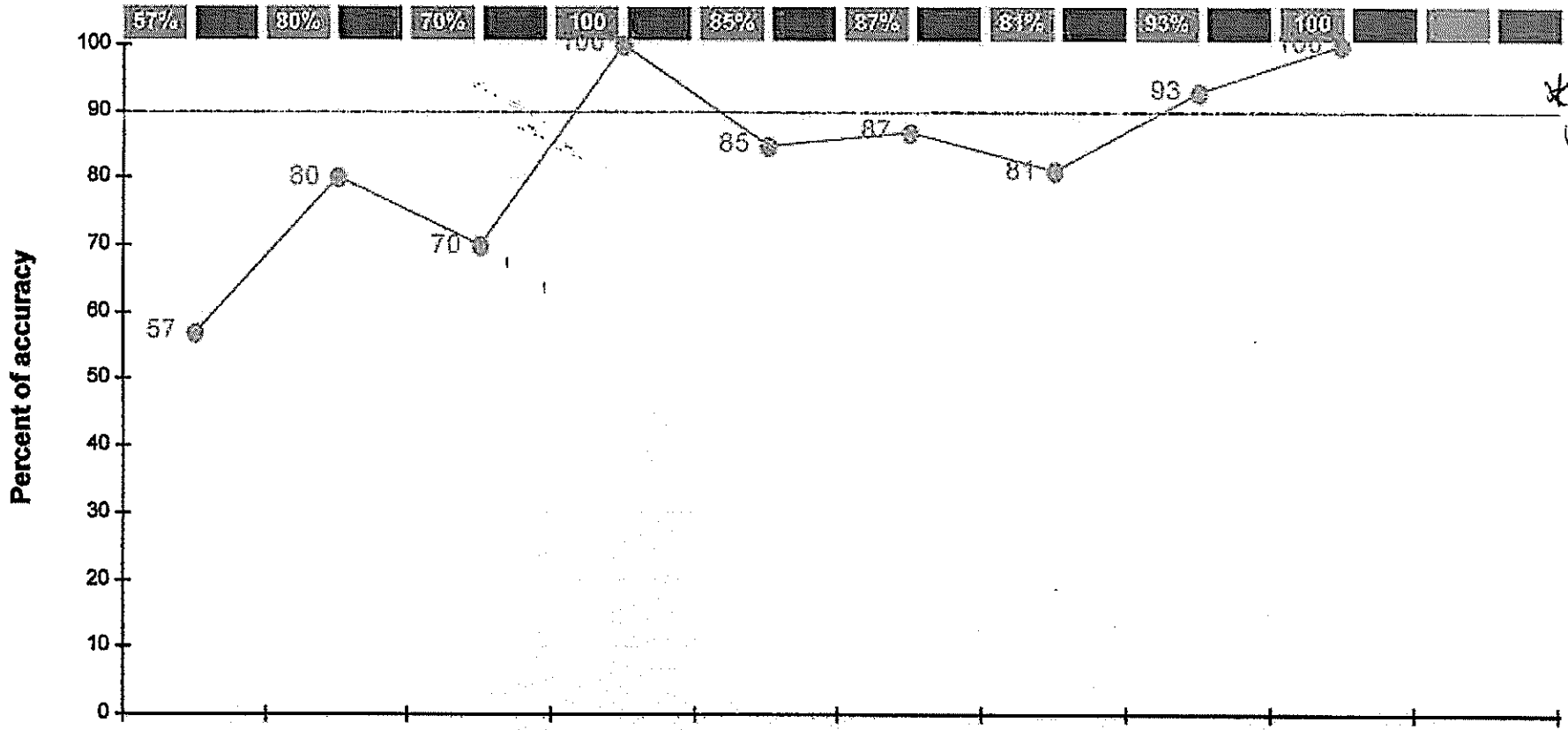
The following information must be recorded directly on each piece of evidence:

* Student's name and date of activity
* Accuracy of performance
* Cues, prompts or other assistance required by the student to complete the task
* Setting in which the activity occurred
* People who interacted and/or assisted the student in the activity

Evidence for this entry should follow this Entry Cover Sheet in chronological order.

Student Name: Morgan SASID # SAU # Grade: 8

Identify parts of Scientific systems with 90% accuracy



Date	Brief Description of Data
9/21/2007	Test on ocean floor. Morgan independently identified the parts of the ocean floor with 57% accuracy.
10/25/2007	Lab on "Mysterious Minerals". Morgan independently identified minerals following a dichotomous key with 80% accuracy.
11/2/2007	Moh's scale homework sheet . Morgan independently identified minerals by hardness with 70% accuracy
12/19/2007	Radioactive Half-life lab". Morgan independently identified "radioactive atoms" with 100% accuracy.
1/11/2008	In-class assignment on rock disconformities. Morgan independently disconformities with 85% accuracy.
1/30/2008	Dinosaur adaptations class work. Morgan independently identified dinosaur adaptation and purpose with 87% accuracy.
2/13/2008	Health class test on the heart and its systems. Morgan independently identified the parts of the heart and its system with 81% accuracy.
4/8/2008	Health class quiz. Morgan independently identified characteristics of the male and female body during puberty with 93% accuracy.
4/11/2008	Watershed class activity. Morgan correctly identified sections of watershed maps from a key with 100% accuracy.

Key

% of accuracy

Comments: Data for this goal was gathered from both the Gen. Ed. Science class and the Gen. Ed. Health class (unit on heart as a system is pertinent to Science goal and curriculum). Morgan was always assigned to work with a typical peer when appropriate (labs, most typically). Morgan is a hardworking student who demonstrates good effort with all of her work.

WORK SAMPLE # 1

Science Choice Standard
Grades 4, 8, and 11 Only

Data Collection Period I
September 17–November 16

Student Work Sample Label *Attach to Work Sample*	
Student Name: Morgan	**Date:** 9/21/2007
Content Area: Science 2 Work Sample: 1	
Data Collection Period: I	Setting: General Education Science classroom with typical peers, Gen. Ed. Science teacher, 1:1 aide.

Activity Description:

Stduents learned about the ocean floor, and took a test to demonstrate their understanding of the ocean as a system, and the different terms. Morgan had vocabulary flash cards for studying, and for identifying the the parts of the ocean floor for that section of the test.

Student's Performance Relative to the Targeted Skill:

After class instruction and study of information with an adult, Morgan independently identified the parts of the ocean floor with 57% accuracy.

Supports:

SmartBoard for text on internet during class instruction, test read to Morgan by aide, picture of ocean floor scanned from text for study and for test, vocabulary terms cut out for use for study and test.

Name: Morgan V ID: C

9/21/07.

23. Pollution that comes from many different places is called non point source pollution

24. The process of removing salt from ocean water is called desalinization

Matching

Setting: Gen Ed. Science classroom w/ typical peers.

Match each item with the correct statement below.

a. evaporation
b. condensation
c. precipitation
d. water cycle

b 25. water vapor changing to liquid water
d 26. the movement of water from ocean through the atmosphere and back
a 27. liquid water changing to water vapor
c 28. falling rain or snow

4/4

Match each item with the correct statement below.

a. abyssal plain
b. continental slope
c. mid-ocean ridge
d. continental shelf
e. seamount
f. continental rise
g. ocean trench

f 29. area between the shoreline and the continental slope
d 30. area between the continental shelf and the ocean floor
b 31. base of the continental slope
a 32. broad, flat part of the deep-ocean basin
c 33. mountain chain on the ocean floor
e 34. volcanic mountain on the ocean floor
g 35. huge crack in the ocean floor

4/7

See attached sheet

Visual of ocean floor scanned. Vocab flash cards used for matching (glued below)

57% on Section

abyssal plain

seamount

continental slope

continental rise

ocean trench

mid-ocean ridge

continental shelf

37

9/21/07

Morgan used vocabulary flash cards + matched them to the parts of the ocean floor.

Revealing the Ocean Floor

Can you imagine being an explorer assigned to [illegible] areas on the planet? You might think that there are [illegible] uncharted areas left because most of the land has been explored. But what about the bottom of the ocean?

The ocean floor is not a flat surface. If you could see the bottom of the ocean, you would see a number of [illegible] features. You would see the world's longest mountain range, which is about 64,000 km (40,000 mi) long and [illegible] deeper than the Grand Canyon. And because the ocean is so large and some areas are so deep, much of the ocean floor is not completely explored.

Reading Check How long is the longest mountain range in the world? Where is it located?

Figure 3 The Ocean Floor

The [illegible] begins at the shoreline and slopes gently toward the open ocean. It continues until the ocean floor begins to slope more steeply downward. The depth of the continental shelf can reach 200 m.

The [illegible] begins at the edge of the continental shelf. It continues down to the flattest part of the ocean floor. The depth of the continental slope ranges from about 200 m to about 4,000 m.

The [illegible] which is the base of the continental slope, is made of large piles of sediment. The boundary between the continental margin and the deep-ocean basin lies underneath the continental rise.

The [illegible] flat part of the deep-ocean basin. It is covered by mud and the remains of tiny marine [illegible]. The average depth [illegible]

[illegible] you would first notice two [illegible] margin is made of continental [illegible] of oceanic crust. Imagining pool. The continental [illegible] pool, and the deep-ocean [illegible] pool. The figure below shows [illegible] ded.

[illegible] Figure 5 below, the **continental margin** is [illegible] shelf, the continental slope, continental rise. These divisions are based on depth ges in slope. The deep-ocean basin consists of the (ah BIS uhl) plain, mid-ocean ridges, rift valleys, and enches. All of these features form near the boundaarth's *tectonic plates*. On parts of the deep-ocean basin not near plate boundaries, there are thousands of ts. Seamounts are submerged volcanic mountains on floor.

Reading Check **What are the subdivisions of the continental**

_ are mountain form where tectonic ll apart. This pulling creates cracks in the oor called *rift zones*. As , magma rises to fill the Heat from the magma ne crust on either side its to expand, which e ridges.

As mountains build up, a _____ forms between them in the rift zone.

are individual mountains of volcanic material. They form where magma pushes its way through or between tectonic plates. If a seamount builds up above sea level, it becomes a volcanic island.

are huge cracks in the deep-ocean basin. Ocean trenches form where one oceanic plate is pushed beneath a continental plate or another oceanic plate.

WORK SAMPLE # 2

Science Choice Standard
Grades 4, 8, and 11 Only

Data Collection Period I
September 17–November 16

Student Work Sample Label ***Attach to Work Sample***	
Student Name: Morgan	**Date:** 10/25/2007
Content Area: Science 2 Work Sample: 2	
Data Collection Period: I	Setting: General Education Science class with typical peers, Gen Ed. Science teacher, and Special Education teacher (in place of 1:1 aide)
Activity Description: Science lab with typical peers called "Mysterious Minerals". Students followed dichotomous key to determine name of mineral based on testing of characteristics.	
Student's Performance Relative to the Targeted Skill: Morgan independently identified minerals by characteristics of color, lustre, streak, hardness and cleavage with 80% accuracy.	
Supports: Gen. Ed. Science teacher worked directly with Morgan and her lab partner while instructing others during lab. Word choices were provided on paper, and Morgan pointed to choices. Spec. Ed. teacher wrote choices in table on lab paper.	

Name Morgan Class _____ Date 10/25/07

Mysterious Minerals *continued* Dichotomous Key

Setting: Gen Ed Science classroom w/ typical pairs

MINERAL IDENTIFICATION KEY
1. a. If your mineral has a metallic luster, GO TO STEP 2. b. If your mineral has a nonmetallic luster, GO TO STEP 3.
2. a. If your mineral is black, GO TO STEP 4. b. If your mineral is yellow, it is PYRITE. c. If your mineral is silver, it is GALENA.
3. a. If your mineral is light in color, GO TO STEP 5. b. If your mineral is dark in color, GO TO STEP 6.
4. a. If your mineral leaves a red-brown line on the streak plate, it is HEMATITE. b. If your mineral leaves a black line on the streak plate, it is MAGNETITE. Test your sample for its magnetic properties by holding it near some iron filings.
5. a. If your mineral scratches the glass microscope slide, GO TO STEP 7. b. If your mineral does not scratch the glass microscope slide, GOTO STEP 8.
6. a. If your mineral scratches the glass slide, GO TO STEP 9. b. If your mineral does not scratch the glass slide, GO TO STEP 10.
7. a. If your mineral shows signs of cleavage, it is ORTHOCLASE FELDSPAR. b. If your mineral does not show signs of cleavage, it is QUARTZ.
8. a. If your mineral shows signs of cleavage, it is MUSCOVITE. Examine this sample for twin sheets. b. If your mineral does not show signs of cleavage, it is GYPSUM.
9. a. If your mineral shows signs of cleavage, it is HORNBLENDE. b. If your mineral does not show signs of cleavage, it is GARNET.
10. a. If your mineral shows signs of cleavage, it is BIOTITE. Examine your sample for twin sheets. b. If your mineral does not show signs of cleavage, it is GRAPHITE

Gen Ed. Science teacher worked w/ Morgan & her partner during lab. She showed Morgan the mineral, then asked her the questions. She pointed to the correct answer or nodded to respond yes, or said "no".

Name Morgan Class _____ Date 10/25/07

Skills Practice Lab **DATASHEET FOR LABBOOK**

Mysterious Minerals

Imagine sitting on a rocky hilltop, gazing at the ground below you. You can see dozens of different types of rocks. How can scientists possibly identify the countless variations? It's a mystery!

In this activity, you'll use your powers of observation and a few simple tests to determine the identities of rocks and minerals. Take a look at the Mineral Identification Key on the next page. That key will help you use clues to discover the identity of several minerals.

MATERIALS

- gloves, protective
- iron filings
- minerals, samples
- slides, microscope, glass
- streak plate

SAFETY INFORMATION

PROCEDURE

1. On a separate sheet of paper, create a data chart like the one below. (Morgan used chart)
2. Choose one mineral sample, and locate its column in your data chart.
3. Follow the Mineral Identification Key to find the identity of your sample. When you are finished, record the mineral's name and primary characteristics in the appropriate column in your data chart. Caution: Put on your safety goggles and gloves when scratching the glass slide.

Characteristics	1	2	3	4	5	6
Mineral name	Galena	Hematite	Quartz	Pyrite		Biotite
Luster	metallic	metallic	non-metal	metallic	metallic	non-metallic
Color	silver	black	light	yellow	black	dark
Streak		red-brown			black	
Hardness			> than glass		4	< less than glass
Cleavage			no		red	yes
Special properties						

4 out of 5 correct on first try. 80%

Scribed by Spec. Ed Teacher as Morgan pointed to choices on Dichotomous Key.

Self-Determination Sheet

Name: Morgan **Date:** 10/25/07

1. For this lab, I would like help from:

an adult **a classmate** **on my own**

2. I will need help with:

completing steps of lab **recording data**

making conclusion **nothing**

3. This lab was: **HARD**

Confusing

Okay, but sort of hard

4. I had: **Too much help**

Not enough help

The right amount of help

5. Next time I will need help with:

Science Choice Standard

WORK SAMPLE # 1

Data Collection Period II
November 19–February 1

Student Work Sample Label ***Attach to Work Sample***	
Student Name: Morgan	**Date:** 12/19/2007
Content Area: Science 2 Work Sample: 1	
Data Collection Period: II	Setting: General Education Science class with typical peers, Gen. Ed. Science teacher, Special Education teacher (in place of 1:1 aide)
Activity Description: Students completed "Radioactive Half-Life " lab. Part of lab required students to follow steps using M&M's and marshmallows to simulate the decay of radioactive atoms. Data was recorded by Morgan's lab partner.	
Student's Performance Relative to the Targeted Skill: Morgan independently identified "decayed atoms", active 'cubium' (fictitous element) atoms, and contributed appropriate information to partner with 100% accuracy.	
Supports: Lab partner gave verbal directions for sorting portion of lab, wrote data in chart, and performed calculations to determine averages	

Morgan 12/19/07

Setting:
Gen Ed. Science classroom
w/ typical peers

Radioactive Half-Life

Objectives:
You will simulate the radioactive decay of an imaginary element.
You will make a graph and determine the half-life of this fictitious element.
You will then use the graph to determine the age of an imaginary rock.

Background:
Radioactive atoms are unstable and break down, or decay, into simpler atoms called daughter elements. Scientists have measured the time it takes for half of the atoms in a radioactive sample to decay into daughter elements. This amount of time is always the same for a specific element and is called its half-life.

The age of some rocks can be estimated on a basis of how much of a radioactive element in the rock has already decayed. For example, the half-life of Carbon-14 is 5730 years. If 50% of the Carbon-14 in a sample has decayed into its daughter element, then the sample must be 5730 years old.

Materials:
Box with lid 100 M&M's 100 marshmallows

Procedure:
1. Be sure each of the M&M's has had one side marked. Each M&M's represents one gram of the radioactive element "cubium".

2. Place the 100 M&M's in the box.

3. Hold the lid tightly and turn the box upside down a few times to mix the M&M's.

4. Uncover the box. Remove all the M&M's that have the marked side up. Count these M&M's. They represent cubium that has decayed into new daughter elements. In the data table next to Trial 1, Test 1, record how many grams of the daughter elements were produced from the decay.

5. Put the daughter elements aside. Count or calculate how many grams of cubium remain. Record this number in the data table for Trial 1, Test 1. Do NOT return to the box, but replace them with an equal number of marshmallows.

6. Repeat this procedure until you have made 12 trials for Test 1, or until all the cubium has decayed. Be sure to record the number of grams of the daughter element produced and the number of grams of cubium remaining after each trial.

7. To be confident in the validity of your data, make four more tests, repeating steps 2-6 each time. Find the average for each trial.

Steps were described to Morgan by typical peer lab partner. Morgan followed steps per his direction with (100%) accuracy.

WORK SAMPLE # 2

Science Choice Standard
Grades 4, 8, and 11 Only

Data Collection Period II
November 19–February 1

Student Work Sample Label ***Attach to Work Sample***	
Student Name: Morgan	**Date:** 1/11/2008
Content Area: Science 2 Work Sample: 2	
Data Collection Period: II	Setting: General Education Science classroom with typical peers, Gen. Ed. Science teacher, 1:1 aide
Activity Description: Students completed an assignment in class on rock disconformities. Students had to label the drawing with the correct type of disconformity.	
Student's Performance Relative to the Targeted Skill: After class instruction, Morgan independently identified the geological disconformities with 85% accuracy.	
Supports: 1:1 aide assistance with use of textbook used for reference on assignment, vocabulary terms provided on separate paper for Morgan to pick from, terms scribed on paper.	

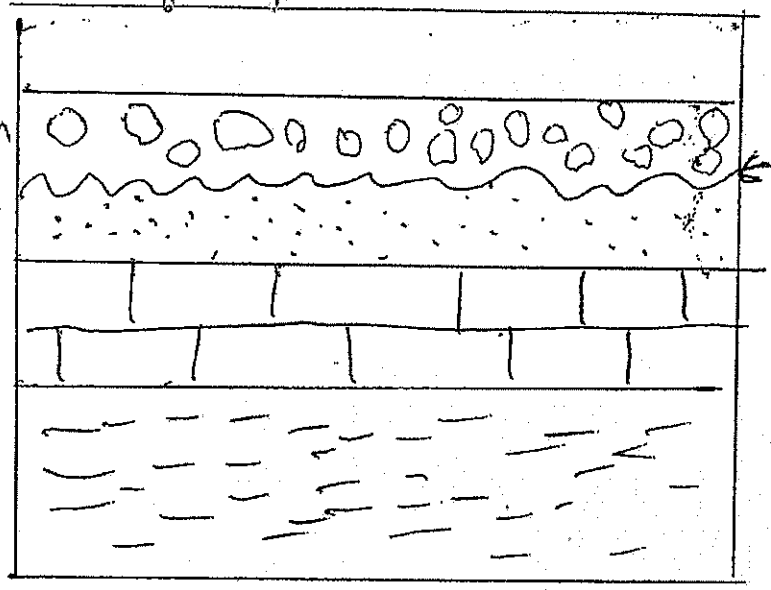
"DWA" (done with assistance): Morgan pointed to vocabulary terms in text book. Aide wrote down answers for Morgan.

1X = 85% Morgan

1/11/08

DWA: textbook

Setting: Gen Ed Science classroom w/ typical peers

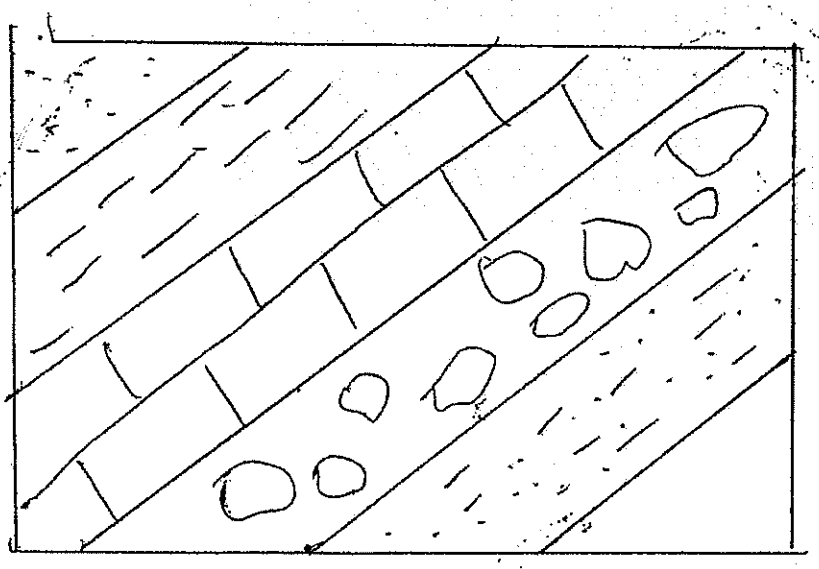


Sedimentary →

X

a Geologic Column

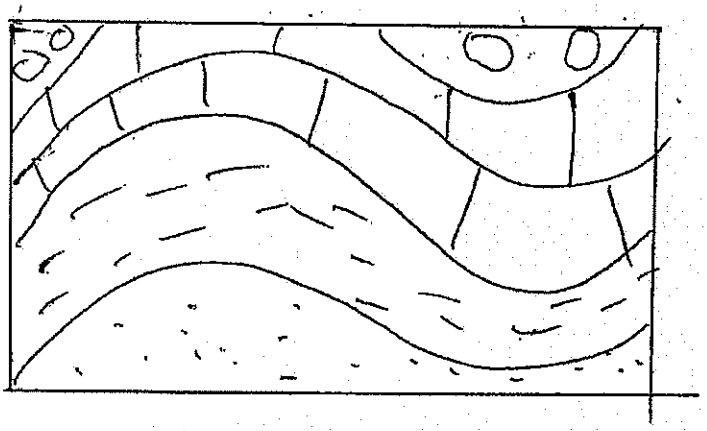
* disconformity



c

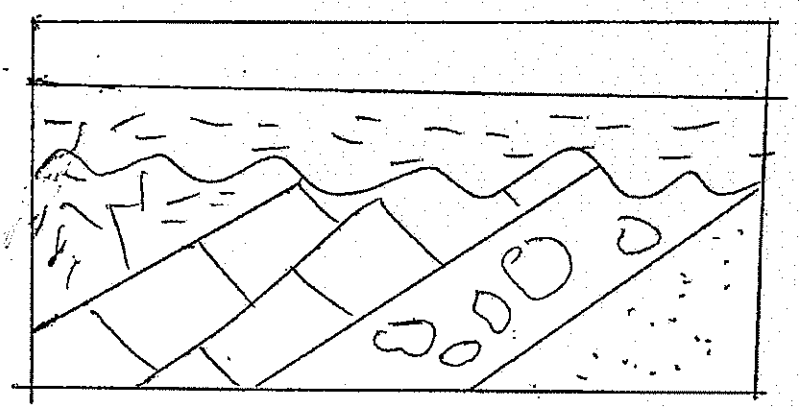
b tilting

Morgan 1/11/08



C

C folding

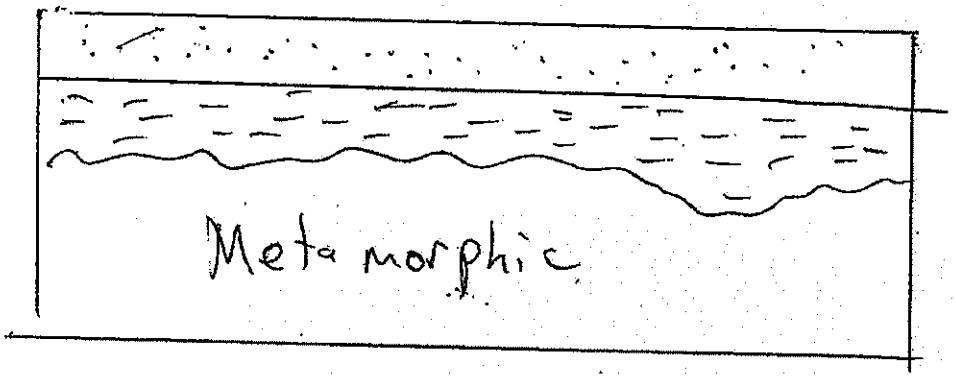


C

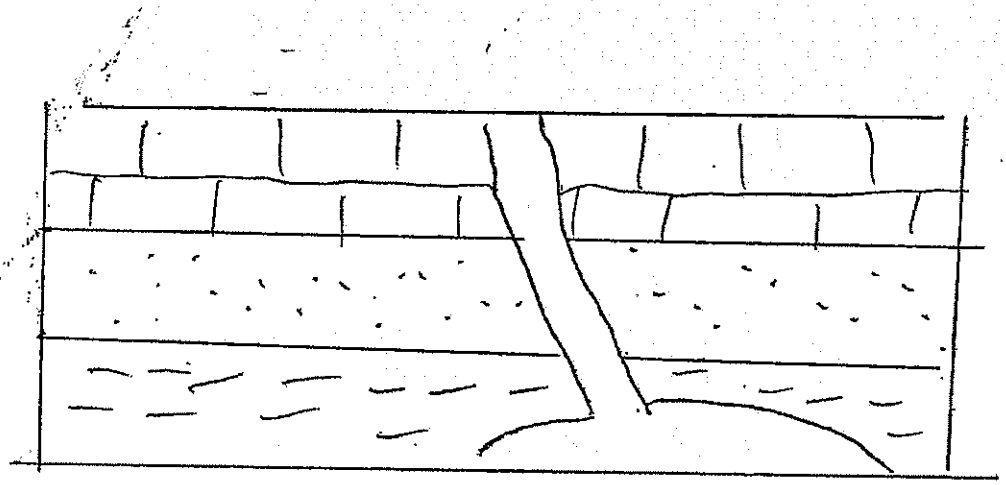
d angular

d unconformity

Morgan 1/4/08

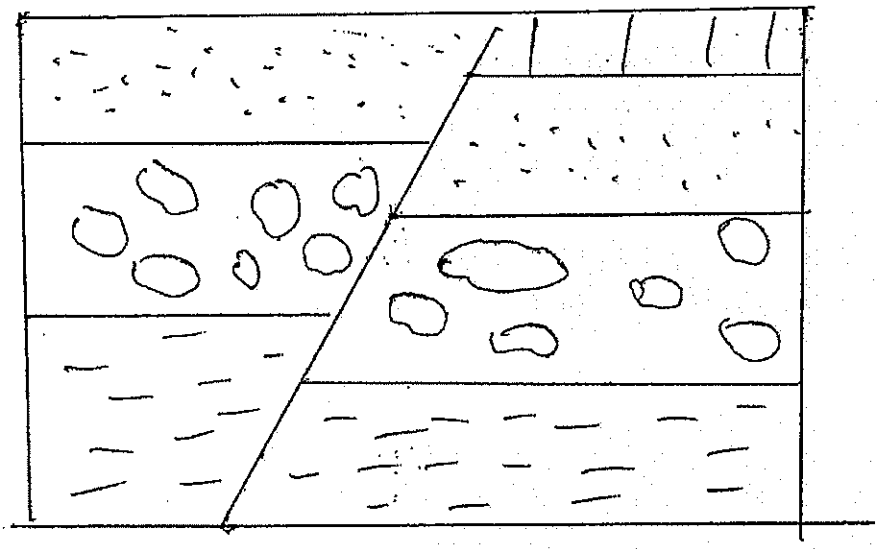


e nonconformity



f intrusion

Morgan T. 1/11/88



g - fault

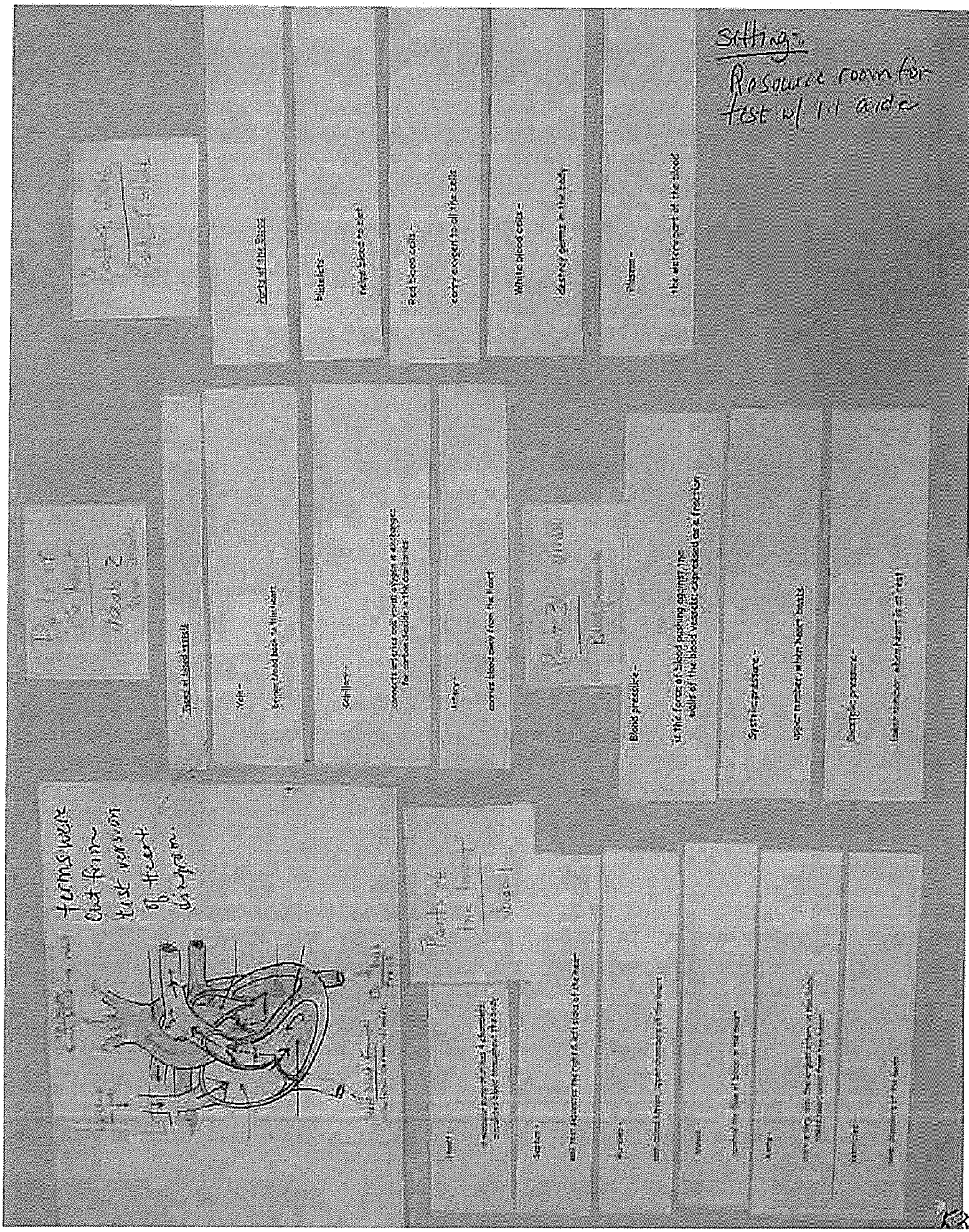
WORK SAMPLE # 1

Science Choice Standard
Grades 4, 8, and 11 Only

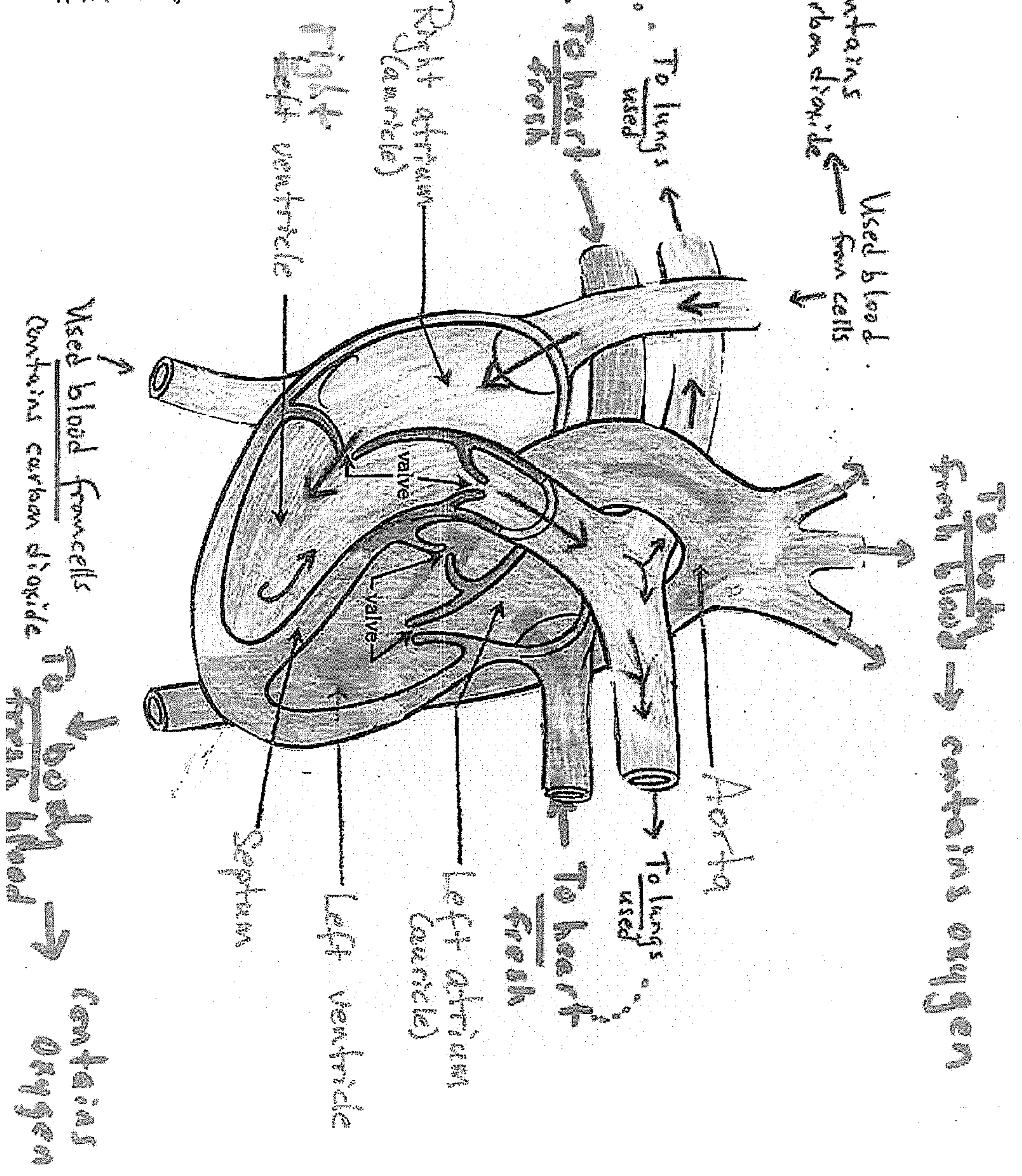
Data Collection Period III
February 4–April 18

Student Work Sample Label ***Attach to Work Sample***	
Student Name: Morgan	**Date:** 2/13/2008
Content Area: Science 2 Work Sample: 1	
Data Collection Period: III	Setting: Special Education Resource Room, Special Education teacher, 1:1 aide. Test was taken in Resource room due to oral presentation of testing questions in order to avoid disrupting other students in class. Rest of Health class was in the health classrooom.
Activity Description: Students were assigned different parts of the human body to research and study in Health class. In addition to taking a written test on their part of the body, each student prepared a PowerPoint demonstration and presented it to the class. Morgan chose the heart, and this work sample is the modified test she took on the parts of the heart and its function. Morgan returned to Health class after taking this test.	
Student's Performance Relative to the Targeted Skill: After study of information with an adult, Morgan independently identified the parts of the human heart and its related systems with 81% accuracy.	
Supports: Health teacher modified test to include vocabulary flash cards with category headings for sorting (see attached picture), colored picture with labels and functions, set of flash cards and picture to send home for Morgan to study at home. Test modification included matching of vocab to appropriate category, and pointing to part of heart when given term to identify.	

picture of vocabulary flash cards organized by system. heart diagram and flash cards created by health class (gen. ed.) teacher.



Used for study. Copy sent home along w/ set of flashcards for home study.



Health: Vocabulary Words for Morgan
Test: February 13th

-3 81%

(1) Parts of the heart – picture (w/out terms - see photo, p. 53) was placed on table. Morgan was asked to point to each part of the heart. 6/6 correct.

1. Heart – the heart is a muscular pump that has 4 chambers, circulates blood throughout the body

2. Auricles – also called atrium, upper chambers of the heart

3. Ventricles – lower chambers of the heart

4. Septum – wall that separates the right & left sides of the heart

5. Aorta – main artery, also the largest artery in the body; takes blood away from the heart

6. Valves – control the flow of blood in the heart

(2) Types of blood vessels – Morgan had

7. Artery – carries blood away from the heart X

8. Vein – brings blood back to the heart X

9. Capillary – connects arteries and veins; oxygen is exchanged for carbon dioxide in the capillaries

(3) Blood Pressure

10. Blood pressure -is the force of blood pushing against the walls of the blood vessels; expressed as a fraction

11. Systolic pressure - upper number, when heart beats

12. Diastolic pressure - lower number, when heart is at rest

(4) Parts of the Blood

13. Plasma - the watery part of the blood X

14. Red blood cells - carry oxygen to all the cells

15. White blood cells - destroy germs in the body

16. Platelets - helps blood to clot

For sections 2, 3, 4, morgan had all vocabulary "flash cards" & had to sort them by category (headings placed on table w/ room for vocab. strips below). 7/10 correct.

Self-Determination Sheet – Heart test

Name: Morgan **Date:** 2/13/08

1. For this ~~lab~~ test, I would like help from:

an adult **a classmate** **on my own**

2. I will need help with:

completing steps of lab **recording data**

making conclusion **nothing**

3. This ~~lab~~ test was: **HARD**

Confusing

Okay, but sort of hard

4. I had: **Too much help**

Not enough help

The right amount of help

5. Next time I will need help with:

?

WORK SAMPLE # 2

Science Choice Standard
Grades 4, 8, and 11 Only

Data Collection Period III
February 4–April 18

Student Work Sample Label ***Attach to Work Sample***	
Student Name: Morgan	**Date:** 4/11/2008
Content Area: Science 2 Work Sample: 2	
Data Collection Period: III	Setting: General Education Science class with typical peers, Gen. Ed. Science teacher, Special Education teacher (in place of 1:1 aide)
Activity Description: Students were instructed to color maps representing changes to a typical watershed area over a 100-year period. They followed a key with pre-determined colors assigned by teacher.	
Student's Performance Relative to the Targeted Skill: Morgan independently identified the parts of a watershed area and colored them appropriately with 100% accuracy. (Most importantly, she also demonstrated an understanding of the impact of development on forest land with 100% accuracy)	
Supports: Morgan was given extended time to complete this worksheet as her hand and arm fatigue from prolonged use. She completed the worksheet over two class periods, listening while Mr. Lees reviewed the infomation on the 2nd day of class.	

Self-Determination Sheet – Watershed maps

Name: Morgan V **Date:** 4/11/16

1. For this lab, I would like help from:

an adult **a classmate** **on my own**

2. I will need help with:

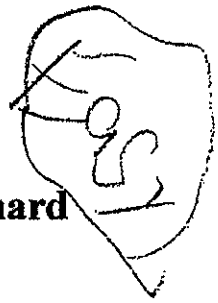
completing steps of lab **recording data**

making conclusion **nothing**

3. This lab was: **HARD**

Confusing

Okay, but sort of hard



4. I had: **Too much help**

Not enough help

The right amount of help

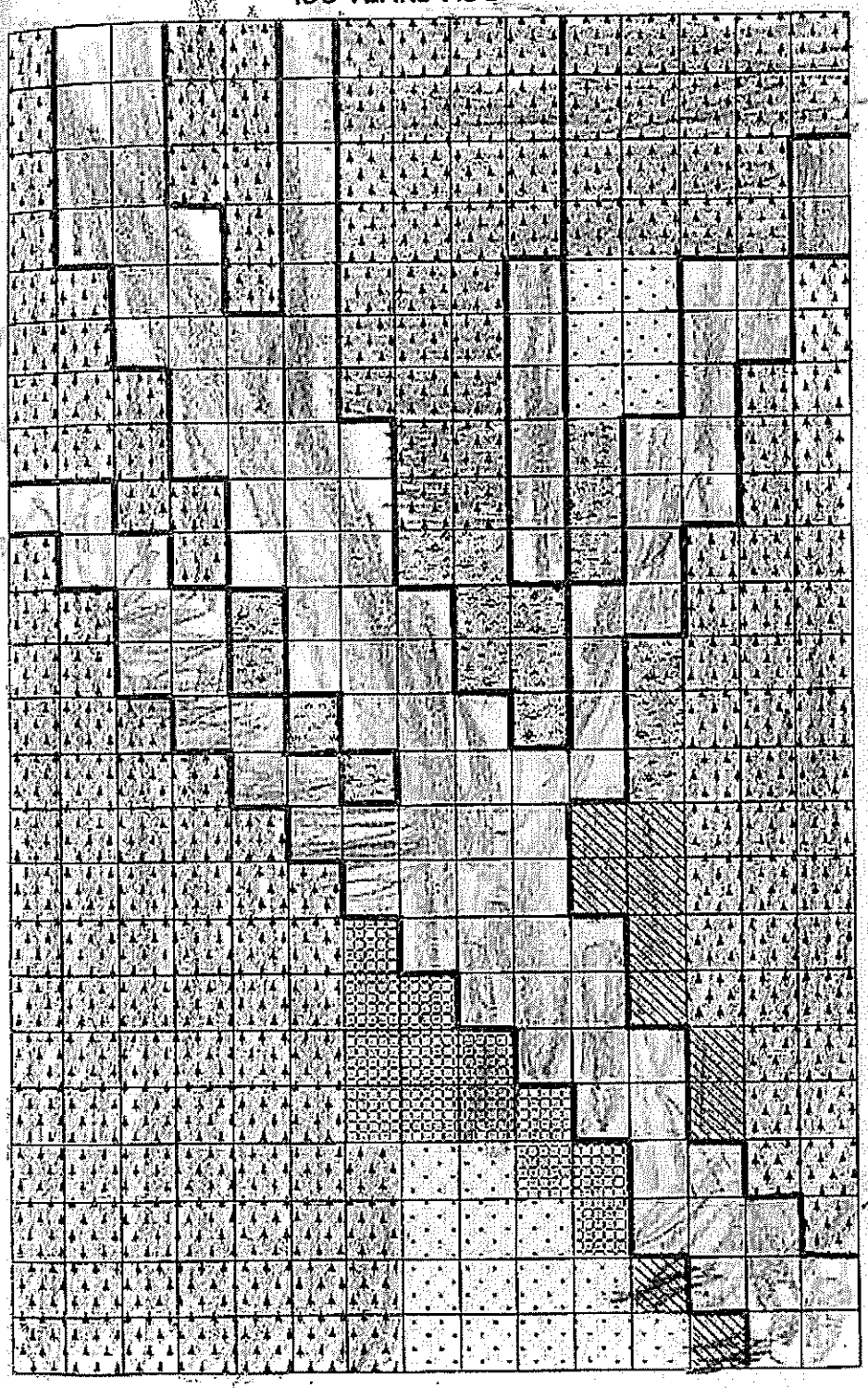
5. Next time I will need help with:

Morgan 4/11/08

Setting: Gen Ed. Science Classroom w/ typical peers.

Map A

100 YEARS AGO

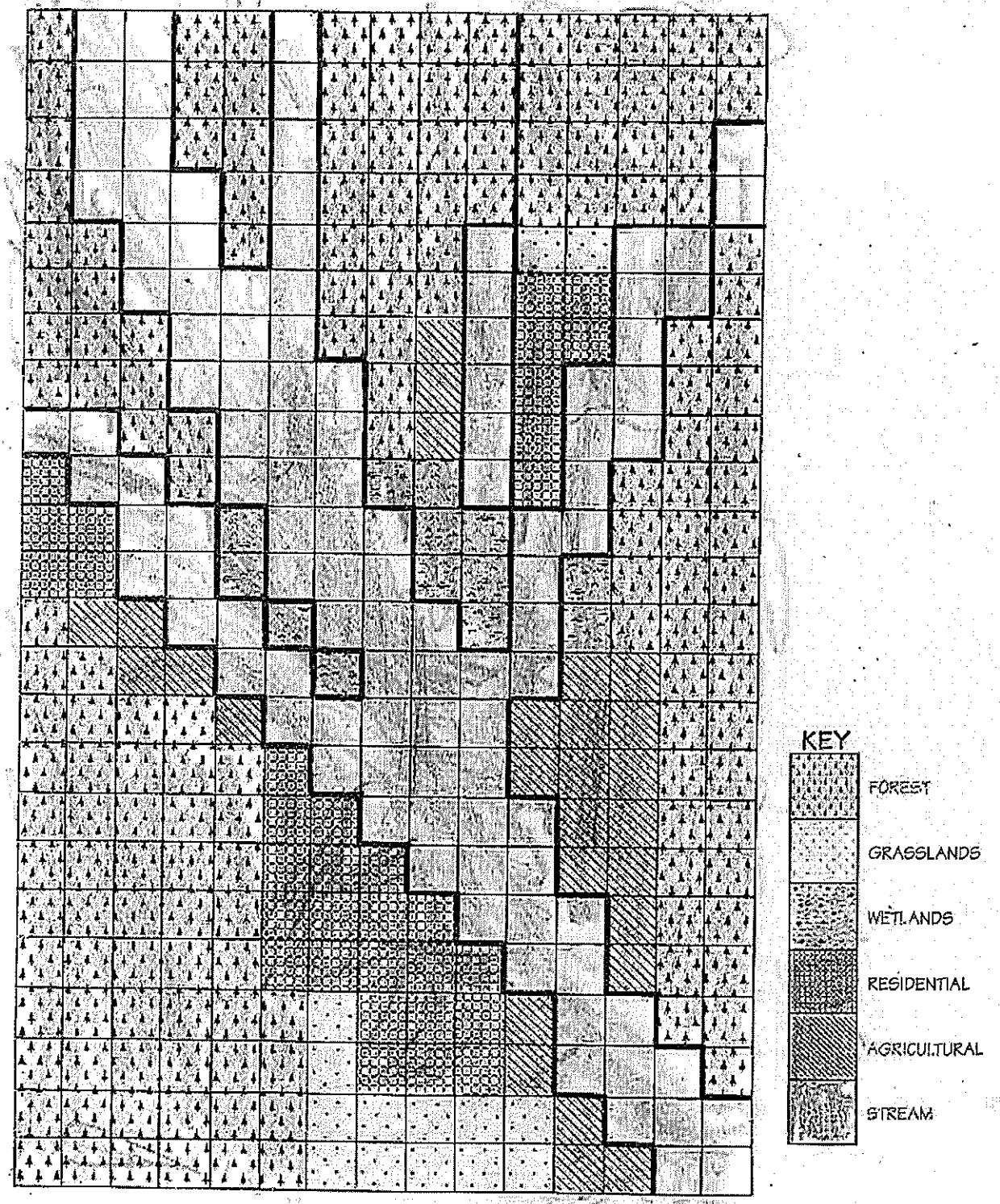


100%

completed independently

Map B

50 YEARS AGO

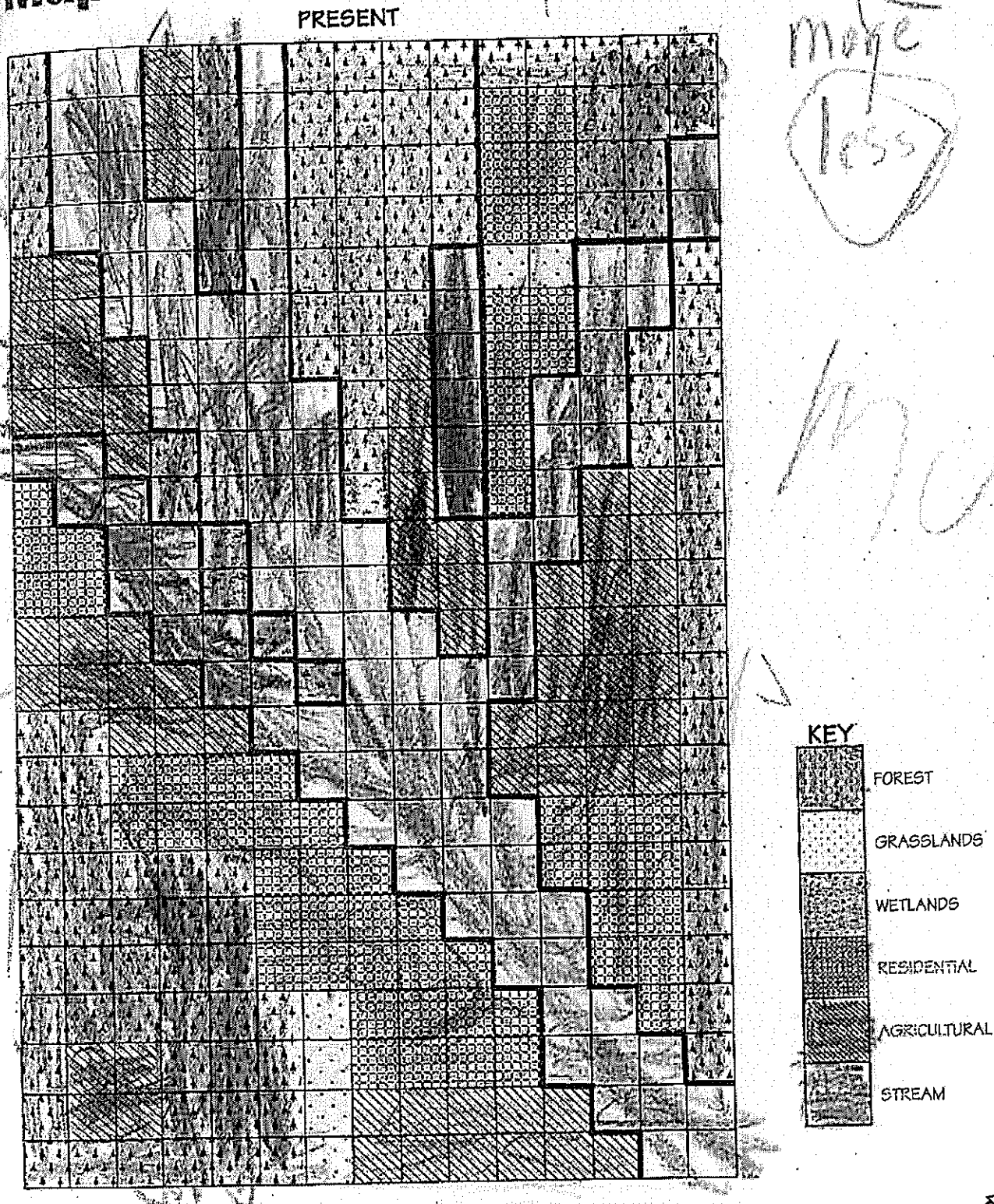


4/11/08

(Morgan pointed to the Residential + Agriculture)

What has taken over the forests?
Is there more or less forest now?

Map C



More

less

More

62